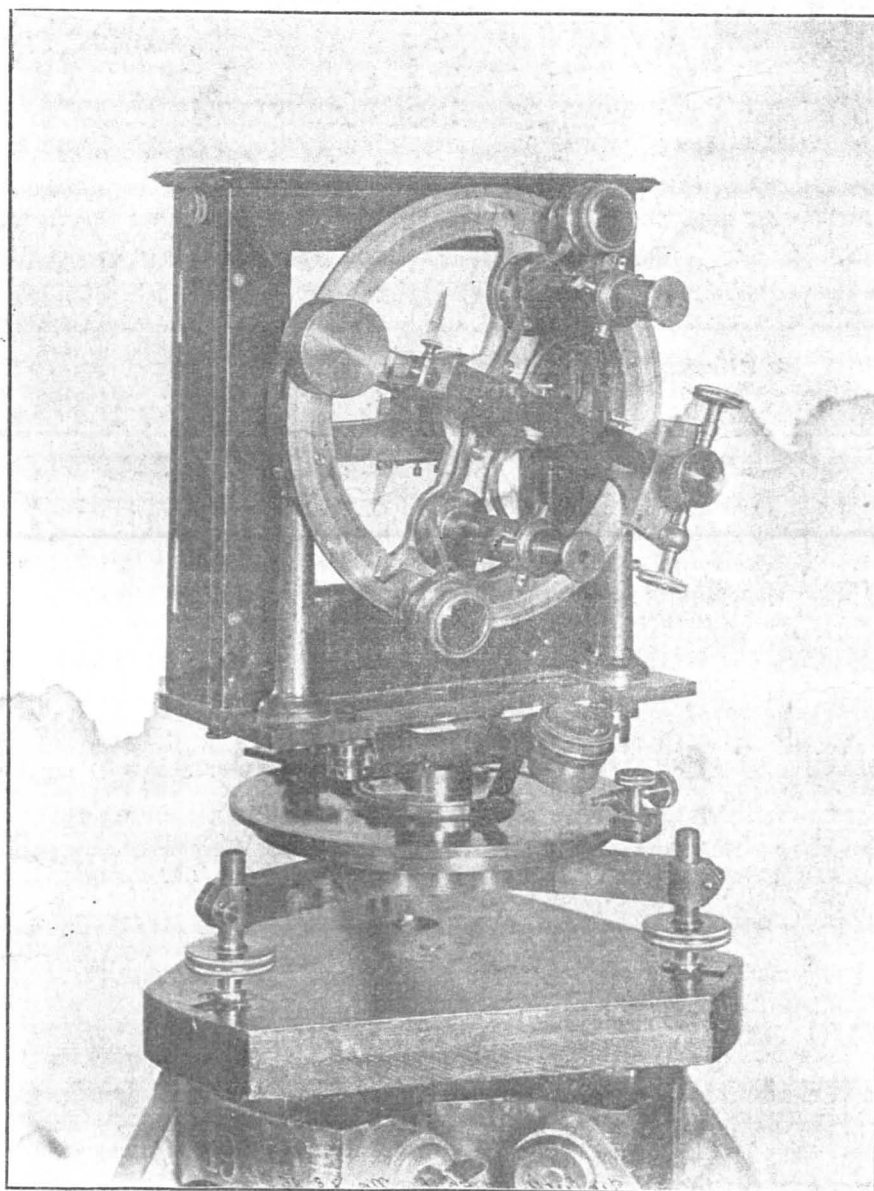


FEBRUARY, 1904

THE  
**ELECTRICAL WORKER**  
OFFICIAL JOURNAL  
INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS.



DIP CIRCLE INSTRUMENT.


FEB 1904

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# —The— ELECTRICAL WORKER

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## IN QUEST OF AN INVISIBLE FORCE.

BY J. E. PRICE.

WHEN it is stated that the United States Government is largely concerned in a manufacturing business no uneasiness need be felt by factory owners in this country. There is no competition involved in the matter. The Government has a book factory; a gun, gun-carriage and projectile factory; gold, silver and paper money factories, and others, including two scientific instrument factories. One of these is the National Bureau of Standards, where some instruments and apparatus employed for measuring, weighing, gauging, etc., are made; the other, the Coast and Geodetic Survey, where are made instruments that have to do with land and sea, the sun, the moon and the stars.

Down in the basement of the Coast and Geodetic Survey building the rumble of machinery is heard every week-day, and there is much boring, cutting, shaping and polishing of things of metal, glass and wood. And the result is seen in highly-finished, accurate instruments and apparatus used in both branches (land and sea) of this Government department—such as telescopes, theodolites, tide predictors, magnetometers, dip-circle instruments, etc.

But there is a great deal of other work done in the C. and G. S.—as the Coast and Geodetic Survey is often called—building, an important part of which is map and chart making. When the results of a survey are drawn and writ upon paper the finished maps and charts are transferred to copper plates—some of them being several feet in dimension—which are put through an electro-

plating process, and then used in printing the sheets so necessary to surveyors and mariners. All the plates are carefully preserved for future use—for, if a coast line changes, a dangerous shoal or reef is discovered, or other changes on land or on sea take place, the plate concerned is simply altered—unwanted lines or objects are cut out and the new features inserted.

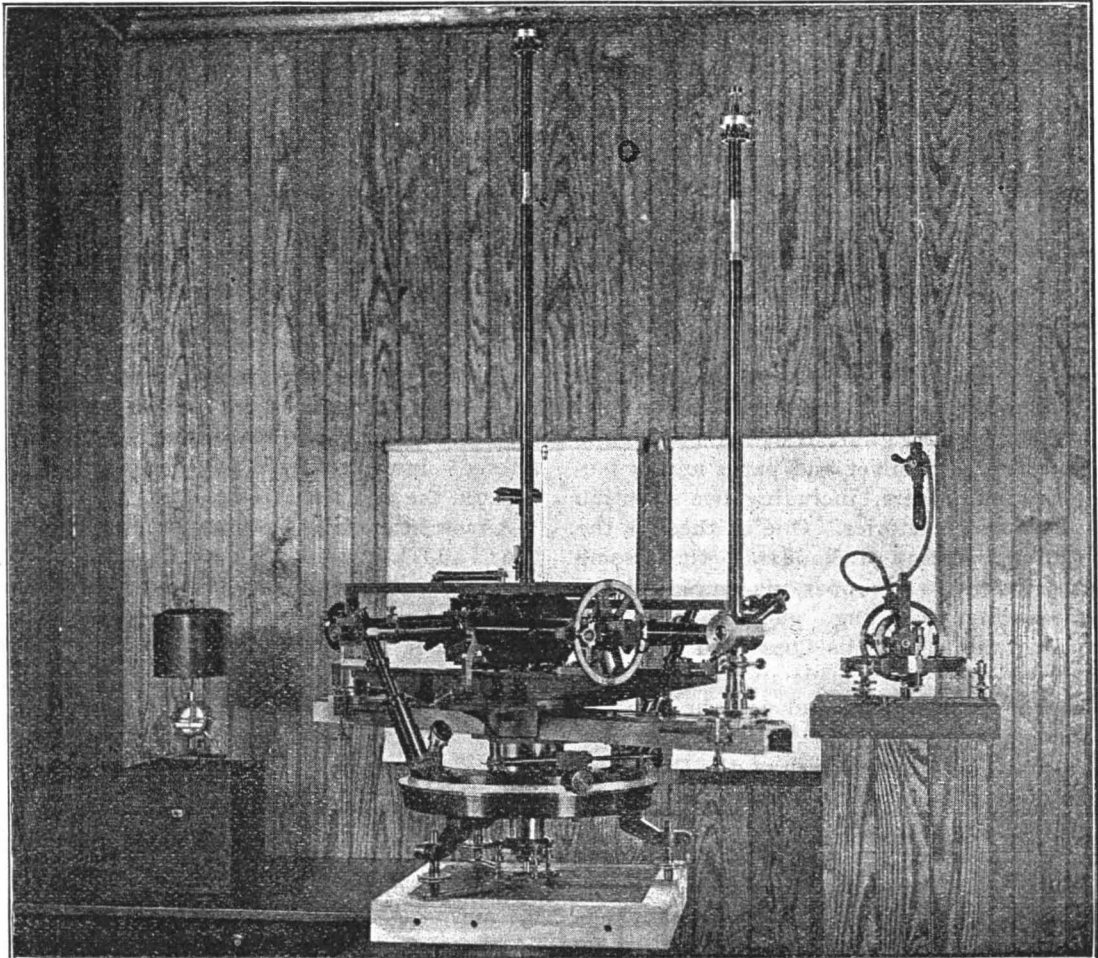
A most interesting feature of the work of the C. and G. S. is its magnetic department, something at this time, particularly, worth more than a passing notice. The C. and G. S. steamers, Blake and Bache, have recently been fitted out with magnetic instruments for obtaining data of much importance, near Porto Rico and other waters. The great magnet (the earth) is continually throwing off its currents, and though the water be deep, yet up from the ocean's floor comes the magnetic influence disturbing the compass needle, and often interfering with navigation. To correct this difficulty it is necessary to determine the force and direction of the magnetic current at various points, and to make magnetic charts so that the mariner can tell the amount of compass deflection at a given locality.

The ships named have the usual outfit for determining compass deviation, with the aid of sun or star, and, in addition, there is a dip-circle instrument, such as was used in both the English and German Antarctic expeditions. Of course, the dip-circle is an instrument having a magnetic needle mounted within the circle, so that it can dip toward the horizontal plane, and

thus show by a graduated scale the intensity of magnetic current flow. The dip-circles on the Blake and Bache are somewhat different from those in ordinary use; the pivots of the needles instead of resting upon agate planes have their support in cups. The instruments are mounted on gimbal stands, so that the rolling of the ship can-

the second element of the earth's magnetism and furnished incentive for further investigation.

The discovery of the loadstone was made by the Chinese; they were the first to find out its directive property and power to communicate polarity to iron, and they were first in directing ships (between 265 and 419



INSTRUMENT FOR DETERMINING HORIZONTAL INTENSITY.

not seriously affect their balance. There are also provided additional intensity needles for determining relative total intensity.

The study of terrestrial magnetism dates back hundreds of years, and yet how comparatively little is known about this invisible but influential force. The discovery of the dip of the needle below the horizon was made in 1576 by Norman, a seaman and an instrument maker. This brought to light

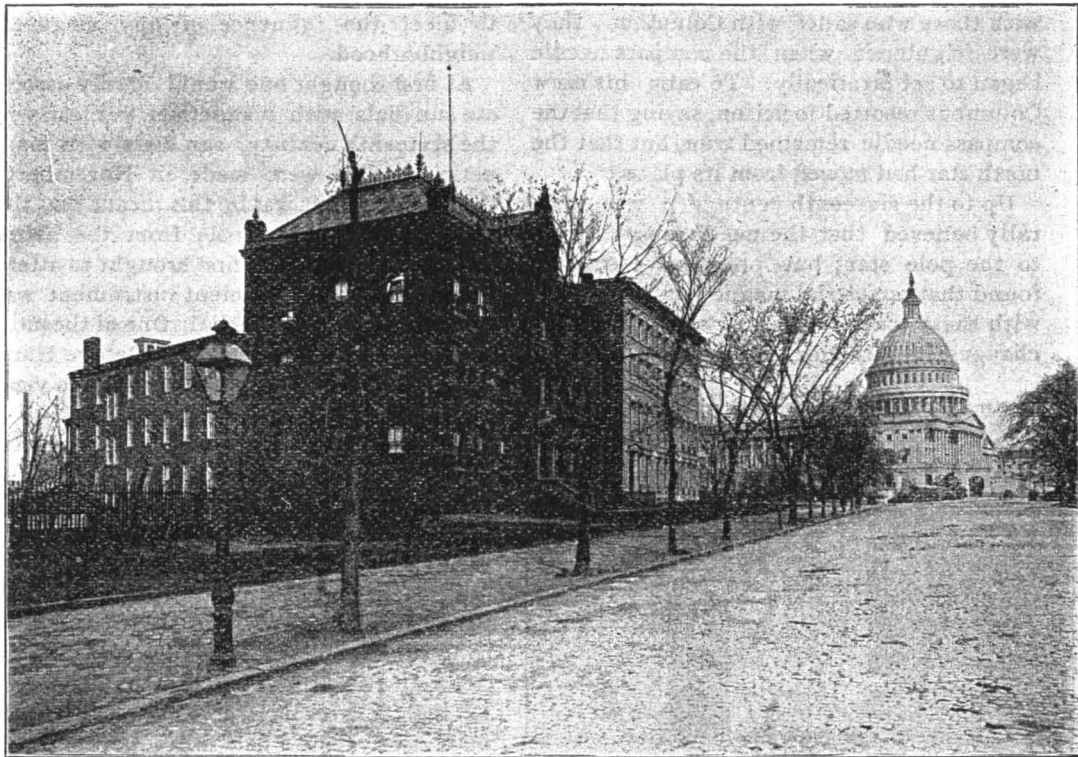
A. D.) by means of the compass. Also, these people seem to have been the first to know of the magnetic declination of the needle.

The gathering of magnetic data not only furnishes a help for present and future navigation, but sheds light upon history in this respect, making plain some difficulties of old navigators, which to them were inexplicable and mysterious. Such was the case

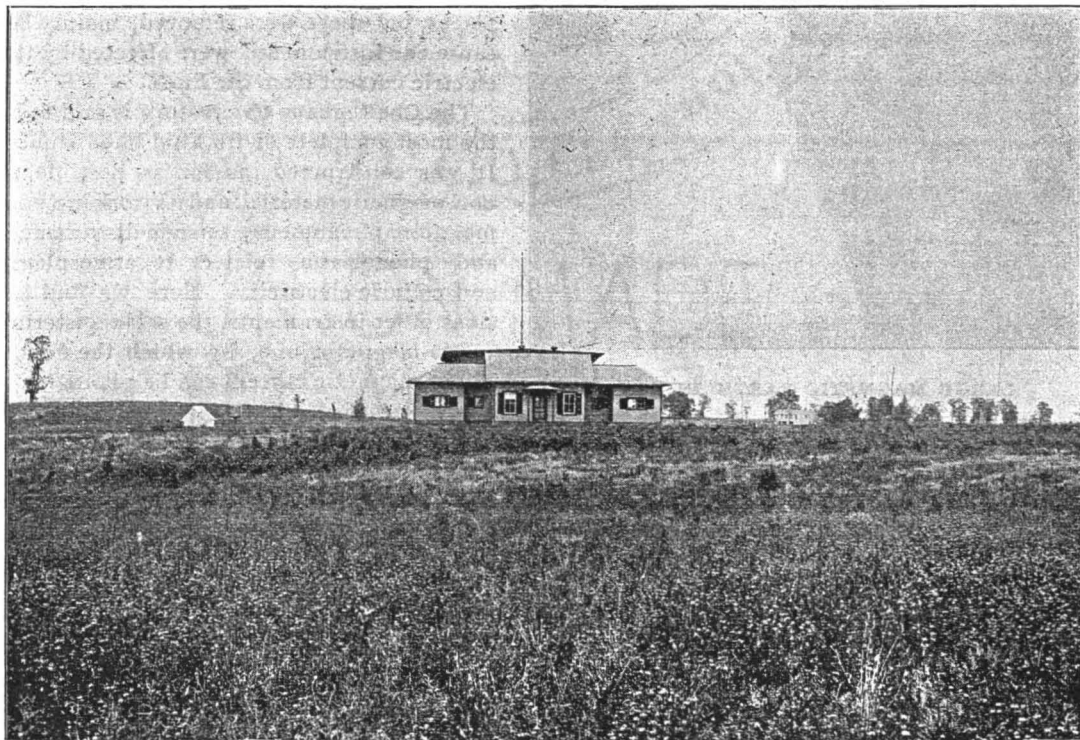


FEB 1904

3



BUILDING OF THE COAST AND GEODETIC SURVEY.



CHEL TENHAM MAGNETIC OBSERVATORY.

with those who sailed with Columbus; they were frightened when the compass needle began to act erratically. To calm his crew Columbus resorted to fiction, saying that the compass needle remained true, but that the north star had moved from its place.

Up to the sixteenth century it was generally believed that the needle pointed true to the pole star; but progressive science found that terrestrial magnetism was at war with the "true pole," and that the needle changes its direction from place to place,

to meet the influence of any magnetic neighborhood.

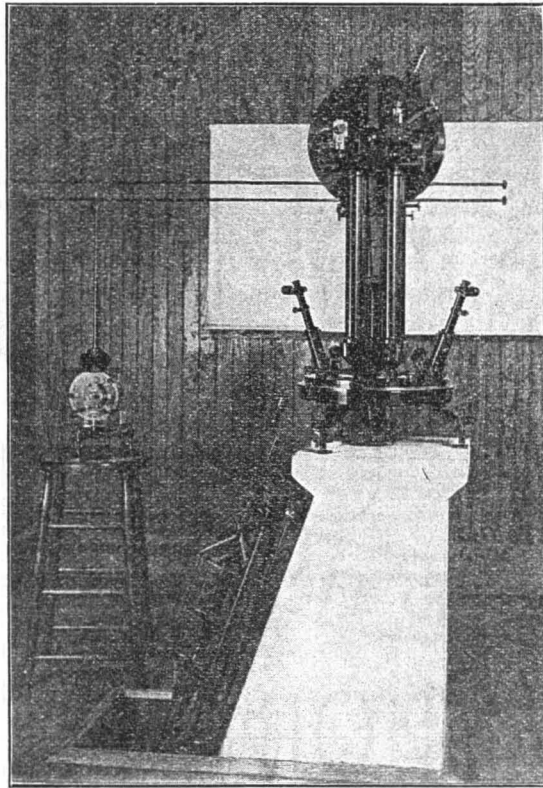
At first thought one would hardly associate sun dials with magnetism, yet, early in the sixteenth century, sun dials with magnetic needles were made in Nuremberg, Germany; and it was by this means that the declination of the needle from the astronomical meridian was first brought to attention on land. This ancient instrument was called the compass sun-dial. One of the most famous makers of these was George Hartmann, a resident of Nuremberg, and a vicar of the church of St. Sebaldus.

Many improvements made in magnetic instruments have been made as the years—and centuries—have flown into the past; and the United States has had a great deal to do with the advancement of this science.

A magnetic observatory has been established at Cheltenham, Md., fourteen miles from the Capitol in Washington; at Sitka, Alaska, near the Russian cemetery; at Baldwin, Kansas, and at Hawaii, on a coral plain, twelve and a half miles west of Honolulu. There is also a set of self-registering instruments in Porto Rico. The Government had magnetic outfits in other places, but these were removed, mainly because the instruments were affected by the electric current from car lines.

The Cheltenham observatory is said to be the most complete of its kind in existence. It was constructed, as far as possible, of non-magnetic material; and its work includes magnetic phenomena, seismic disturbances and phenomena related to atmospheric and telluric electricity. Here we find besides other instruments, the self-registering photo-magnetic one, by which the doings of the magnetic current can be photographically recorded. The movements of the magnet, when disturbed, are reflected upon a sheet of sensitized paper, continuously kept in motion by clock work, and the record thus made appears in zig-zag lines, which give the extent of the swing of the magnet and the force of the current.

The Cheltenham observatory also has the work of standardizing all the magnetic instruments used by the Government. Every instrument must be first-class and meet certain requirements. You may say they are war instruments, for the mariner and the



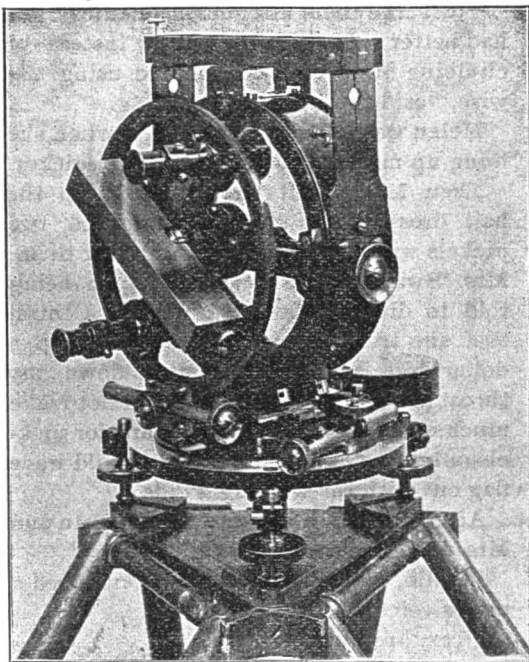
LARGE MAGNETIC EARTH INDICATOR.

and in very few places points directly north and south.

The introduction of steam machinery on vessels, and later the iron-hulled ship brought new troubles to the compass, and the making of magnetic observations at sea became more difficult. The compass needle is not only affected by the magnetism of the ship itself, but is also affected by different headings and angles of heeling. The remedy for this is in an arrangement of auxiliary magnets; and these are adjusted

surveyor are fighting magnetism—a powerful and insistent foe, which if left to do its tricky work can send ships to destruction, or can so deflect the land surveyor's compass as to change correct lines and make unjust boundaries. From this one might say that magnetism is a right-hand agent of Satan. And every human being has in his or her body more or less of this "agent."

But like electricity, which also has its bad points, magnetism has many uses. And some day Old Probabilities may take it in hand for a new and important work; it may be-



LLOYD-CREAK DIP CIRCLE FOR OBSERVATIONS AT SEA.

come an earthquake herald. It is known that strong magnetic disturbances have preceded seismic shocks. So by gathering data in this field—recording strength and direction of current manifested just before an earthquake—it may be possible to tell when a shake up will occur. The Coast and Geodetic Survey has among its equipments a number of instruments for detecting and recording earth tremors, but these have nothing to do with forecasting such phenomena, only in the particulars of showing the exact time of the tremors, their direction and force.

Magnetic phenomena also occur during auroral displays; storms of magnetism whirl about the earth and instrument needles are violently agitated. At such times the earth seems to be throwing off accumulated magnetic force from sources within its crust, where are large masses of magnetized and magnetizable substances.

The sun and the moon both influence the earth magnetically, and the former in a marked degree when spots appear upon its surface, possibly caused by magnetic storms which rend the gaseous envelope of the solar orb, making "holes" in this covering that are called "spots." Many years ago an observer saw through a telescope a flash of fire (probably electric,) dart from the sun and instantly extend to a distance of 7,000 miles. At that moment magnetic instruments in various parts of the world were violently disturbed, and, in some cases, telephone apparatus were set on fire.

On October 12, 1903, the spots on the sun were 172,000 miles in length and 59,000 miles wide, and other spots developed aggregating 123,000 miles. Coincident with these spots a brilliant aurora was observed, making a glowing appearance, near the northern horizon, while bright streamers shot up toward the zenith.

The luminous inner envelope of the sun is said to be about 2,000 miles in thickness; it is the light and heat producer, and may also be an electric "storage plant." However this may be, it is known that the solar orb has electric and magnetic influence upon our planet.

#### THE REASON.

A kind-hearted lady saw a small boy seated on one of the benches in Fairmount Park the other day smoking a cigar; which she afterward told a friend seemed as big as himself. The lady is an enthusiastic anti-tobacco worker, and never loses an opportunity to impress, especially upon youthful minds, the evils of using tobacco in any form. Seating herself by the side of the lad, she said, kindly, "Oh, my boy, wouldn't your father be dreadfully pained if he saw you smoking that cigar?" "Rather think he would" responded the twentieth century young man, without removing the weed from his mouth, "this is one of his best cigars."—Philadelphia Record.

## THE TELEPHONE'S STORY.

BY CHAS. H. COAR.

I was brought into service rather roughly, starting with the day the instrument-man jerked me off my feet and slammed me down on a bench so he might paste the number, "Yellow 4411 Y. K." on forehead. I felt rather blue when I found I was to be placed on a party line, but little did I know of the fun I was to have.

In the afternoon I was placed in the hallway of Mrs. Jones' boarding house on the west side, where she boards anything from cheap actors and musicians up to clerks. How all the boarders stared at me when they returned to supper, each one looking down my face to see if I was the proper height. After rendering them good service for a few days life became so monotonous that I looked about for some fun. So Saturday morning, when one of the clerks called up his store to tell them he could not be down to work, I slipped a cog just as he was telling how sick he was in a doleful tone, and before he knew it he was telling his troubles to a feed man, who did not seem in the least interested.

When the clerk found out the mistake he grabbed me by the ear and jerked me nearly to pieces.

"Number, please?" Central said.

"You gave me the wrong number, Central; I want Black and Tan, 1346 Y. L., and you gave me a feed store," said the clerk.

"Here is your party; drop a nickel in the slot," said Central.

"I have paid for that call once," said the clerk.

"Put a nickel in the slot," said Central.

After swearing at me and the whole company he put another nickel in my mouth, which I swallowed just as easy as I could, so Central could not hear it.

"Am I ever going to get Balck and Tan, 1346 Y. L.?" said the man. "Or have I got to stand here all day and feed this slot nickels?"

"You can have your party just as soon as you put in a nickel," said Central.

The clerk said he would write first, and after swearing at me in French for five minutes he slammed my ear back just as though he had no feeling. All was still for awhile, but

when a ring came through me for another phone I sounded my alarm. Helen Gone, who was standing near, rushed to me to answer the call. When she reached me two sweet things were talking about a party they were to attend.

"Hello," said Helen.

"Well, wouldn't that jar you?" from one sweet thing.

"Who is this?" from the other sweet thing.

"Helen Gone," replied Helen.

"Don't you dare swear over this wire," from one sweet thing.

"Just like them kitchen mechanics; she had better retreat to the pantry instead of climbing in on us when we are using the wire," said the other sweet thing.

Helen was half scared to death, when she hung up my ear, and I just had to snicker.

Then Mrs. Swift tried to call up the hair dresser, and after I swallowed two nickels without letting Central hear them, Mrs. Swift became so excited upon being told to drop in another nickel by Central that she tried to force a postage stamp, a dollar bill, and a prescription down my throat all at one time. She did not make much of a success at it, as I yearn for nickels only, so she left me with her cold wave flag out with threatening winds.

After waiting a while I rang again and Mrs. Jones answered the call.

"Hello, is this Mrs. Jones?" inquired a man's voice.

"Yes," replied Mrs. Jones.

"Well, could you tell me where your husband is?" asked the man.

Bang! up goes my poor ear, and Mrs. Jones mutters something about crazy people being allowed to use telephones. The man at the other end wondered what the matter was, until he learned Mrs. Jones was a widow and not the party he called for.

I was real good after this for a couple of hours, so that some one would repose a little confidence in me, and I was soon rewarded. Mr. Stuckup called Brown, the feed man, and ordered a bale of hay and a sack of oats. Stuckup never let Brown know who he was, so when Brown asked who the order was for, Stuckup replied any damn fool would know it was for a horse, and then he hung me up; so Brown did

not know where to send the order. I nearly bursted laughing, when the hired girl called the butcher up to inquire about an order for meat she had left him, and just as she was inquiring if he had sent up her liver, I slipped a cog.

My, how Dr. Pellet laughed when he heard a feminine voice asking about her liver. His laughing made the hired girl so mad that the thermometer near me raised 20 degrees before she quit me.

I behaved for a few days, to wear off the ill-feeling every one seemed to have for me. But, alas, just when I thought myself "pat" Mrs. Jones handed me my coup de grace. This happened yesterday, when Mrs. Jones' baby started coughing. Mrs. Jones rushed at me to telephone the doctor that the baby had swallowed his bank.

A man happened to be asking a girl on our line why she had treated him so coldly at a party the night before, when Mrs. Jones cut in.

"Well, you know what Claude said about it?" said the girl.

"No; I don't," said the man. "What is the matter with Claude?"

"O, he's swallowed his bank; he's swallowed his bank," wailed Mrs. Jones.

"That's what I thought," said the man.

"When he takes a girl out for good time he reads to her out of a magazine. I never knew him to jar loose."

"Don't you dare say anything against Claude."

"That wasn't me that said he swallowed his bank. It was one of those old Cutinskys at the boarding house."

"Which one—Hazel or Ethel?" said the man.

"This is Mrs. Carrie Jones, the mother of the child, and I want——"

"O, is that you Carrie?" asked the man.

"Good morning, Carrie. How are you this morning?" asked another voice. "Have you used——"

Whack! right across my stomach, where I hold my nickels, Mrs. Jones hit.

The stuff is all off with me until the repair man fixes me up, and I do hope he will hurry up, as I am getting dreadfully lonesome.

P. S.—In view of the fact that parts of the above story have appeared before in other

forms I take liberty to inform the readers that I have simply arranged them in story form.

### LIBERTY OR GREED, WHICH?

Some people have most remarkable ideas of what constitutes liberty. Many such people are now talking glibly about the "sacred right to freely labor." It will be observed that when these gentlemen have spasms about the liberty of labor it always means the liberty to labor at a reduced wage fixed by these liberty advocates or the liberty of the workingmen to labor under conditions that the majority of his fellows refuse to accept. In any case it is invariably the liberty to do something from which the advocate of such liberty derives a personal benefit.

The champions of liberty who have set glorious examples of disinterested heroism before the world have acted from lofty principles alone. The Washingtons, the Lafayettes, the Emmets, the Browns—these heroic souls had no thought of self. They demanded liberty for others that all might be uplifted. But the employer who is seeking to fasten the long-hour workday upon the laborer is doing no such thing in his demand for "liberty" for the "independent" workman. His demand is not that there should be universal liberty and general happiness, but rather that a minority of the workers shall have the liberty to ignore the common welfare and help the employer accomplish his selfish purposes.

Some good may come out of Nazareth, but real liberty can never arise from personal greed.

\* \* \* \* \*

"Starvation and \$50,000 lying within reach of his hand."

Friendless, and a fortune staring him in the face.

Deserted and surrounded by wealth. So died an old man out in Nebraska the other day.

An old man of eighty, living alone, dying alone, and a fortune beside him, a useless fortune, because it could not buy him friends or food.

The man was a miser. He loved his gold so well that he had no time, no desire to love anything else, and probably if he had



ound the opportunity and the will, he would have fought them both down, because it might have taken a few of his dollars to pay for his emotions.

He had gathered in and hoarded up his coins, one upon another, piled them up in little stacks, rolled them in even rolls, and died in the midst of them, hungry and thirsty.

He had spent all the best years of his life accumulating his wealth. He could have had every comfort, every luxury. He could have had wife, family, home, friends, and he had nothing, nothing, absolutely nothing, but a lot of money that he could make no use of.

As he lay dying he could stretch out his fingers and draw his beloved riches close to his cold heart, his trembling arms could gather it in, all in their weak circle, and get all of it together, yet could not bring him the bite of bread, the sup of water, for want of which he died.

What a poor man he was, what a miserably poor creature!

What good was his money to himself or to any one?

What good? Why, it was not worth the dirty rags and paper in which it was wrapped.

Not one dollar of it had gone out in charity. Not one cent had ever been given to a little ragged beggar, not one nickel to a hungry woman, not a dime to a poverty-stricken church.

His money all lay beside him as he died, the harvest of years of rigorous saving and exacting self-denial.

How the silver dollars and the filthy bills would have laughed and sneered at him if they had the power. How the coins would have jingled against each other mockingly, and the bills flaunted themselves derisively before his dying eyes.

How they would have taunted him with their nearness and their uselessness.

He could not take his wealth with him, it could not even be buried with him, and he died as he lived—poor, friendless and alone.

Can you find out the moral for yourself?

The metric system has been adopted by the Parliament of New Zealand.

### THE SINGLE TAX PRINCIPLE.

Are those that denounce organized labor because it denies man his natural right really desirous of his having that right? They declare it interferes with the natural right of man to work for whom and what he pleases.

Labor organized because it already had lost its natural right; if we had natural rights—and our laws conformed to moral laws—there would not be a conflict between employer and employee.

Man's natural right is a right to life, and that certainly means an opportunity to earn a living. What is this opportunity? Is it for some men to provide employment? There is nothing to show this to be the natural order. If we but look far enough we will see that the earth is the source of all wealth to-day, as it was when man was in his most primitive state, and civilization may grow more complex. We can perform no labor except on land, and all materials that we use come from the same source.

As we have grown in population we have enormously increased our productive power by higher intelligence and improved machinery, yet the conflict is greater to-day for a living than fifty years ago. It is because we have ignored the natural law. We have treated that that was intended for all as a form of wealth, and recognized in land the same right to ownership as in wealth produced by labor. With land monopolized labor unorganized would not get enough of its own product to subsist on.

Now, as to the method of securing to all that justly belongs to them. We all have equal right here. Then take the profit of the earth for all, take ground rent for the public use, leave no one an advantage by reason of his ownership of a piece of the earth; let us be done treating the symptom, but eradicate the disease that has afflicted all civilization.

If we are sincere, we will consider the merits of the single tax, and if found just, it should have honest support.

E. H. BOECK,

St. Louis, Mo., Jan. 18, 1904.

Engineers of Atlanta, Ga., will soon form a branch of the American Institute of Electrical Engineers.

FEB 1904

• THE CURRENT AND THE CURRENCY.

BY J. E. PRICE.

The employment of electricity for power in the department buildings in the Capital City now concerns nearly every one of these government working places; but the most extensive use to which it is put here, in this particular, is in connection with three big factories: The Government Printing Office, the great gun-making plant at the navy yard, and the money factory—the Bureau of Engraving and Printing. The first has to do with knowledge; the second, war; the third, all humanity and its doings. Therefore the latter factory is the most interesting.

The money-making industry has become so vast that it has become necessary to build a large addition (size, 258 by 47 feet in ground dimension and two stories and basement high) to accommodate machinery and make more room for the 2,940 workers. A new laundry building and horse stable will also be erected.

To get a good idea of the process followed in producing electric-made money the writer went to the Bureau, and soon found himself amidst a wilderness of machinery, busy workers—two thirds of the latter females—and piles upon piles of money. Money in all stages of the process toward completion was so plentifully in evidence that one had to be careful lest a misstep should plunge him into beds of untold wealth.

During the last fiscal year the Bureau turned out 155,743,691 sheets of U. S. notes, silver certificates, bonds, national bank notes, internal revenue, customs and postage stamps, checks, drafts, etc. The number of postage-stamp sheets was 52,402,381, which means that over five billion, two hundred and forty million stamps were printed. But let's have some description of the process followed in manufacturing valuable promises-to-pay.

After the steel plate, which contains the familiar lines, letters, etc., seen on a note, is engraved an impression is taken from it by hydraulic force upon a round billet of soft steel; this is then hardened, and in turn is pressed upon a blank engraving-plate of soft steel, which is cut into by the raised lines, etc., of the die billet, and be-

comes a duplicate of the original plate. The latter is made and kept only for this transferring purpose; the duplicate for printing from.

If the plate is to be used for bills of small denomination, running four to the sheet, it is taken to the big hand-press room—an apartment about 200 by 100 feet in dimension, where there are about 250 presses and 500 men and women—or to one of two other rooms of the same kind. There are 415 hand presses in the building and over forty, all kinds, run by mechanical power. The larger plates are taken to the power presses, run by direct-connected electric motors or chain motor gear.

The paper used for making circulating notes is a specially prepared kind, having, visible, in its texture coarse silk fibers as distinguishing marks. It is sent from the Treasury Department in certain quantities each day, and every sheet is accounted for. This precious material is cut to proper size, wetted down, and then receives impression on one side—the note face. It is now dried, again wetted, and has the other side printed. Another drying (this process requires drying-racks on wheels and a drying room) and the notes are smoothed out by hydraulic pressure, and then sent to an electrically-operated machine, which not only prints the serial numbers but automatically changes the figures to suit different series.

Now the notes take a bath—in an electric-moved bathing machine. The motor used is direct-connected, moving a number of rollers, which carry bands, or "blankets"—one upon the other—that passes through a sizing for hardening and strengthening the money-paper. The latter, fed between the blankets goes into the trough, coming out damp on the other side of the bath. The sizing is made of ordinary glue and alum, mixed in a large metal tank. The liquid in this, with a white froth about three inches thick, looks like egg-nogg—and smells like burnt horse hoofs.

At this point of his observations the writer took up a package of five-dollar notes worth twenty thousand dollars, and was told that it weighed thirteen and a half pounds. The sizing makes the money a little heavier.

After being again smoothed out under hydraulic pressure of 5,000 pounds, this

FEB 1904

operation taking about half a minute, the money is counted (it is counted at each separate stage of its progress toward completion) and then stored in a vault, where are millions of dollars in notes, etc. Later it is sent to the Treasury Department's main building, where the seals and signature are put on by the printing outfit there.

The electric motor, direct-connected to machinery, runs the postage and other stamp presses. In this work four engraved plates are used on each machine, and the four connected by a horizontally-moving chain carrier, slide from corner to corner of the square press frame, so that while one is being inked another is making the stamp impression, and a third, after being used, passing under an oscillating cleaner. The cleaner carries a roll of cloth, between fifty and sixty yards in length, which, while being rubbed on the plates, slowly unwinds. The cloths used for cleaning small money-presses are two yards long, eighteen inches wide, and applied by hand. About one thousand small and one hundred large cloths are used in one day's work in the Bureau. They are washed every day. The laundry employs about fifty men. The cloths are put in circular, revolving boilers, some fifteen feet long by six in diameter; when cleaned they are starched, by being passed through rollers, into and out of a starch trough, and then are ironed upon a steam-heated revolving drum.

When the stamp-sheet is printed, dried and smoothed it goes to the gumming room. This is about 200 by 100 feet in ground size; and the floor space for half its length and all its width, except two narrow passages, is taken up by eight wooden, boxed channels. At the upper (north) end of each of the latter is located a gumming apparatus, consisting of a gum trough, a glass roller, and stamp feed-rollers. Above the trough there is a gum-holding reservoir of four or five gallons capacity, which continually pours a little stream of gum liquid on the outer side of the glass roller. The latter, made with particular attention to smoothness (and costing \$125), is 18 inches long, 5 inches in diameter, and closes the front of the trough. As it revolves it engages the back of the moving stamp sheet, depositing thereon the adhesive matter.

A female attendant feeds the sheets to the catch-rollers; and when they (the sheets) are gummed they pass, on a set of chain carriers, through the boxed channel—which is heated—coming out at the lower end dried.

Each of the carriers and all the feeding and gumming apparatus belonging to it are moved by a direct-connected motor—two of two-horse power and six of one-horse power each.

The gum—so often licked by writers of letters—is harmless; so much so that the superintendent of the gumming room said he would not be afraid to eat it. Well, we eat its constituents. It is made of potatoes and cassava, boiled at a certain temperature, producing a chemical change and reducing the mass to a thick mucilage consistency. Glucose was also used, but is not now needed.

After the stamp sheets are pressed smooth they are carried to another room, where the little holes that separate each stamp on the sheet are electrically punched. Other machinery—both electrically and steam-operated—now cuts the sheets into divisions (postage stamps are cut into four sheets of one hundred stamps each) and they are ready for the postmaster, the revenue man, et al.

A most important part of the Bureau of Engraving and Printing is its ink-making department. This is a factory by itself. Its machinery is run by electric current. It has a laboratory where materials are tested and colors matched and made. Of course, the ink is composed of oil and pigments. All of it is not perfectly indelible, as some suppose. The indelible kind is made with carbon, from calcined bones and wine dregs. In the color-scheme more than twenty different shades are used. The linseed oil employed is a most important feature in the process.

The oil in part is first boiled—in a peculiar manner. This is done, mainly, in a big room, which looks, with its furniture, much like an old fashion kitchen. There is a huge fireplace, about fifteen feet wide, four feet high, and six feet deep; and this is connected by smoke ducts, with a chimney about 150 feet high. In the fireplace sit a row of pots, each holding four or five gallons of oil. The

FEB 1904

latter is set on fire (the only fire in the fire-place) and blazes up until it reaches the required degree of thickness and purification. Other oil is boiled on a range in the "kitchen."

The finished oil is in three grades of thickness, according to the use to be made of it; one kind being like thick liquid glue. When the oil and the pigments are mixed, the compound is put into grinding machines, where it passes between closely adjusted rollers, coming out fine and smooth and ready for the plate printer.

About 5,000 pounds of this ink is made each working day, and nearly this amount is used in a day in the Bureau.

The power plant of this money factory consists of three boilers of 250-horse power each, and four 125-horse power each. The electric outfit comprises two 14 and 28 by 48 Rice and Sargent tandem engines, direct-connected to two 300 kw. General Electric generators, with speed of 100 r. p. m., voltage 220; and two 13 and 20½ by 14 Ames tandems direct-connected to two 123 kw. Westinghouse generators, voltage 220, speed 240. All are run condensing.

The coal used aggregates 650 tons per month.

Nearly all the power machinery in the Bureau is now operated by means of electricity; and soon all the "machinery of money" will be moved by this force.

#### PROSPERITY OF THE TRADE UNION.

The great difference between the trust and trade union is that the trust concentrates wealth for the benefit of as few people as possible, while the trade union distributes wealth to as many as possible. The trust, therefore, represents a handful of selfish money makers, while the trade union represents the great body of the nation.

Including the farmers, who are practically wage workers, because they are obliged to take whatever price they are offered, this is a nation of wage workers; and prosperity depends chiefly upon the rate of wages.

Business depends upon buyers, and buyers must get money before they can spend it. This is the main condition of prosperity, which professors and capitalists have ignored. Poorly paid workers buy very little, and machines buy nothing at all.

Automatic machinery, owned by a few

capitalists, is one of the greatest destroyers of business, if no provision is made for the displaced workers.

The prosperity of the middle classes, and in the last analysis of all classes, depends upon high wages. The druggist, the merchant, the doctor, the actor, etc., are less prosperous when the workingman has less money. Business is sustained, not by the occasional purchase of a luxury, but by steady, everyday purchase of high-class necessities.

The monopolist's dream of producing wealth with machinery and monkeys would be the death of all business.

"If I owned this canal, I'd take all these nasty gates out of it," said a little boy to his father, as the steamer on which they were sailing was passing through the locks of the Sault Ste. Marie Canal. To the child's mind the locks were nothing but vexatious obstacles in the boat's course. He did not know that without these "gates" the canal would be but a shallow brook, absolutely worthless for the purpose of navigation.

And so, whenever a strike occurs, there are always a number of people with grown-up bodies and baby minds, who cry out that trade unions interfere with business and general prosperity. Others who know better, but whose opinions are governed by some capitalistic interests, take up the cry, until to-day it is a very common belief that prosperity is endangered by labor organizations.

The fact is that it is the organization of labor that sustains and perpetuates the middle class. Where there are no trade unions, as in Russia, the population consists of nobles and serfs.

The legitimate capitalists makes the greatest mistake of his life in fighting trade unions instead of co-operating with them against financial schemers, political blackmailers and monopolists. It is to the employer's interest to have intelligent and contented workmen; but it is not to his interest to have a system of financial and political parasitism, such as exists to-day.

The two great causes of American prosperity are the enterprising, legitimate capitalists, and the intelligent, inventive workmen. There should be no quarrel between these two, no matter what the red flag revolutionists say.

They are both workers—the one with the

brains more than the hands, the other with the hands more than the brains. When the capitalist loses his money he becomes a working man again; and when a clever workingman saves his money he becomes a capitalist.

The men who destroy prosperity are the monopolists and Wall street schemers on the one hand, and the ignorant, degraded, unorganized workers on the other. These two are the froth and dregs of our civilization. The first must be legislated out of existence, and the other must be educated and taught what it means to be American citizens.

Trades unionism has proved to be a great benefit to the employer, even when considered from a money-making standpoint only. Potter Palmer, of Chicago, found this out several years ago.

"For ten years," said he, "I made as desperate a fight against organized labor as was ever made by mortal man. It cost me considerably more than a million dollars to learn that there is no labor so skilled, so intelligent, so faithful, as that which is governed by an organization whose officials are well-balanced, level-headed men. \* \* \* I now employ none but organized labor, and never have the least trouble, each believing that the one has no right to oppress the other."

It is continually forgotten that nine-tenths of our ablest business and professional men received their early training in a workingman's home. Even our world-beating financiers and consolidators did not drop from heaven, as some editors seem to think.

The men who are born millionaires invariably amount to nothing. All the real greatness of America has been due to the ability of the workingman's children, ever since the days of Franklin, the son of the candle-maker.

The important factor in commerce to-day is neither labor nor capital, as such, but brains. I do not mean the "brains" of the Wall street manipulator any more than I mean the "brains" of the counterfeiter and bank-sneak. Neither do I mean the "brains" of the monopolist, who merely piles million upon million.

The brute force of capital is not brains.

The sort of intelligence upon which commercial greatness depends is that of the inventor, the skilled mechanic, the clerk or farmer or merchant who mixes thought with useful work.

Centuries ago, when labor was nothing but muscle, it took 30,000 men eleven years to dig a canal through a mountain 3,000 yards across, in the reign of the Roman Emperor Claudius. To build one of the pyramids required the labor of 100,000 men for twenty years.

But in our time numbers count for nothing—one expert is worth hundreds of drudges. One man to-day gives a steam engine a drink of water and a mouthful of coal and performs as much work as 125 workers of the last century.—International Steam Engineer.

#### THE CO-OPERATIVE IDEA.

In answer to Brother M. J. Hawkes, of Shreveport, La., as appeared in the December issue of the Worker, entitled "Co-operative Telephone," will say that any such step seem to me to be just the proper course to pursue and to be the key to solving the "Capital and Labor Problem." The idea, which occurred to me some two years ago and which I explained to Local No. 200, of Anaconda, Mont., was that the American Federation of Labor be given the power to levy an assessment of one per cent of each affiliated member's earnings and invest this amount to the best possible advantage.

Assuming the numerical standing of the American Federation of Labor to be 2,000,000 and the average wages to be \$2 per day, this would mean an income to the A. F. of L. of two cents per day per member, or \$40,000 per day. In one year the A. F. of L. would have (figuring in round numbers) three hundred times the above amount or \$12,000,000.

Assuming the membership remained the same for a period of ten years and the income of \$12,000,000 be invested annually, so as to draw interest at three per cent (which could easily be done by following the example of the New York Life Insurance Company, by erecting large office buildings), we would have at the expiration of the tenth year the enormous wealth of one hundred and thirty-seven millions, five hun-



dred and sixty-six thousand, five hundred and sixty-one dollars and seventy-five cents (\$137,566,561.75), less clerk hire, etc. As wealth is the absolute controlling factor in the United States this amount, it seems to me, would so strengthen the voice of labor (and union labor at that) that we would be able to say something instead of sitting quietly and listening to the dictation of others.

Should the money be invested in mills, etc., it would enable labor to employ itself and reap the benefit of the "big juicy pie" that the bloated boss now smacks his chops over, and at the same time it would reduce the "big fellows" from their lofty positions to our own class, and thus put the people on a more equal basis—and, perhaps, spare all honorable, hard-working people from reading such ignorant ads as, "Wanted—A male or female servant."

I would be very much pleased to see this idea appear in the official organ of the A. F. of L. and hear it thoroughly discussed.

H. D. FAIRCHILDS.

Salt Lake City, Utah.

#### OHM'S LAW AND HYDRAULICS.

The article by Brother Chas. H. Coar in the December number of the Electrical Worker is somewhat misleading in comparing the principles of Ohm's law with those of hydraulics. To any one having a general knowledge of mathematics it can easily be calculated that a pipe  $\frac{1}{4}$  of an inch in diameter has 16 times the area of one  $\frac{1}{16}$  of an inch in diameter. Also a wire  $\frac{1}{4}$  of an inch has the same proportion to one  $\frac{1}{16}$  of an inch.

Any one having the correct idea of the proportionate carrying capacities of pipes might get the wrong idea of the proportionate areas and capacities of wire conductors (according to Ohm's law), and vice versa. It can be readily seen that it would take but 1-16 (instead of  $\frac{1}{4}$ ) of the voltage to force the same amount of amperes through the large wire that it would take for the smaller wire. Also, where we would use 16 volts pressure to force one ampere through a given length of the smaller wire of one ohm resistance we would need but one volt on the  $\frac{1}{4}$  of an inch wire, owing to its resistance being 1-16 that of the smaller.

However, to any one having little or no knowledge of hydraulics or electro dynamics it will give a fair conception of Ohm's law, although mathematically incorrect.

I wish to state that I am pleased to see such articles in the Worker, and also such other articles as are instructive to both the inexperienced and those of extended experience.

Hoping that some one will correct me if I am incorrect, I remain fraternally

JOS. C. SCHULER.

Janesville, Wis., Jan. 18, 1904.

#### RATHER CONFUSING.

An old "salt" who had learned to navigate a bicycle while in port, was working a rapid passage the other day when he collided with a lady cyclist.

Fortunately there was no personal damage, and when they had extricated themselves from the wreck he anticipated her expected outburst of anger, from which she could gather little except that he was exceedingly sorry.

"I'm sure as I ought to be scuttled for it, mum," he said apologetically, "but I couldn't get your signals no more than if we were feeling through a fog bank. I was blowin' for you to pass to port an' steerin' my course accordin'. Just as I was agoin' to dip my pennant an' salute proper, your craft refused to obey her rudder, an' you struck me for'ard. Afore I could reverse, your jib boom fouled my starboard mizzen riggin', your main sail (skirt) snarled up with my bobstay, parted your toppin' life, an' carried away my spanker down haul. As I listed I tried to jibe, but I capsized, keel up, an' put you flounderin' in the wreckage."

By this time there was an interested audience, and the lady was mentally debating whether she should run from a supposed lunatic or ask for an interpreter.

The removal of the Eiffel Tower from the Champs de Mars is an engineering feat of no small magnitude. The necessity of its removal is regretted by thousands, but already it has leaned so far out of plumb that a small increase in the depression of its foundation at one side will place its center of gravity outside its base.



In London a million and a quarter of persons live on \$5 or less a week for a family of five.

The production of beer is more than half a barrel for every man, woman, and child in the United States.

The new trans-Canadian route from Liverpool to Yokohama will be 2,200 miles shorter than that across the United States.

Of the immigrants to the United States during the fiscal year, 511,302 had less than \$30, and 185,667 could neither read nor write.

Three hundred thousand people in London live in one-room tenements, averaging five to each tenement, and 30,000 homeless persons walk the streets every night.

In the plans for the Manhattan suspension bridge chains are substituted for cables. It will be entirely different from the Brooklyn bridge or the new Williamsburg bridge across East River.

Professor Ramsay, when asked recently if he believed radium would ever have a commercial value, said, "I don't believe radium will ever be commercially useful. Medically it will be."

The annual mortality in the United States is: For railways, 1 person is killed for every 1,052 employees; for coal miners, 1 person killed for every 744; for sailors in merchant vessels, 1 person killed for every 133.

By the use of antitoxin in the treatment of diphtheria the death rate on account of this disease among the children treated by the medical inspectors of the health department of Chicago has decreased from 35 per cent to less than 7 per cent.

Radium is now being manufactured in Germany and France, and though sold at \$2,000 per grain the supply does not equal the demand. It possesses all the important qualities of Roentgen rays, being more valuable because of its always being ready for use and requiring no additional expense for

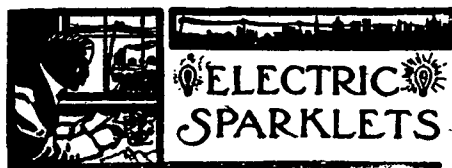
apparatus. In the treatment of cancer it surpasses the Roentgen rays in its effect, for a thousandth part of a grain in a minute test tube brings about results that are not equaled by the Roentgen rays, which require an expensive and complicated electric apparatus.

The nitrate mines of Chili yield the world's supply of that fertilizer and their production is limited in order to maintain the high price. Last year the output was 1,250,000 tons, furnishing work for 23,000 men.

An English shipbuilder recently took a contract to build a steamer of 8,000 tons at the rate of \$26.75 per ton. This is but little more than half what it would have cost to build such a vessel two years ago, showing a great depreciation in the value of shipping property.

Thermite is a new alumino-thermic compound, discovered by a Russian chemist. This compound burns fiercely when fired by the application of a bit of magnesium tape and generates a heat equivalent to that of the electric arc. The fused combination is hot enough to burn a hole with clean edges through an iron plate of any thickness without heating the plate, except at the point of perforation. And it is claimed that the fusion of this thermite has mended the broken stern post of an ocean liner, repaired the broken driving wheel of a locomotive, and welded a broken shaft on a Rhine steamer.

The St. James Gazette of London calls the attention of professional neologists to the present and rather pressing need of some new verbs. "We want," it says, "popular verbs for several operations introduced by modern science. The X-rays, the Finsen treatment for lupus, and the operation of radium for cancer, and what not—what are the words for these? A man is guillotined or hanged, his leg is amputated; he is trepanned. What is it when he is rayed, Finsened, radiumed? We still want a wireless word. 'Marconigram,' which was suggested, seems to have died a natural death. What is the synonym for telephone when one speaks over the instrument to which a phonograph is attached? And have we finally agreed that 'motor' is the verb to travel by automobile?"



About 500,000 incandescent electric lamps will be used in illuminating the World's Fair grounds and buildings at St. Louis, Mo.

Lord Kelvin's estimate of the age of the world is: "Not so great as 40,000,000 years; possibly as little as 20,000,000 years; probably 30,000,000 years."

The Chicago Telephone Company now has 101,200 telephones in service, having added 1,600 in December. The gain for 1903 was about 22,100 instruments.

What is claimed to be the richest radium-bearing earth in the world has been discovered in the Llano gold and coal fields, 115 miles north of Austin, Tex.

The Canadian Government is looking into the feasibility of the electric smelting of iron, and is sending a commissioner to Europe to study up the subject.

The General Electric Company is expected shortly to make an announcement of a development in alternating current work which will be of a revolutionary character in the electrification of steam railways.

The Harlan and Hollingsworth Company has completed the electric sleeping car, Theodor, and shipped it to Indianapolis. The car was built for the Holland Car Company, of Indianapolis, and is the first electric sleeping car constructed.

The Weather Bureau of the United States Department of Agriculture has established on Governor's Island a storm warning station, equipped with high power electric lights. Hereafter all storm warnings, flags by day and lights by night, will be displayed at that point.

A dispatch from London states that Armstrong & Orting, inventors of the wireless telephone, have invented an instrument they call an electro-capillary record. Cables are enabled to receive from four hundred to five hundred letters a minute. The arrangement seems indifferent to leakage and faulty cables.

The officers of a Colorado electric railway, which is seventeen miles in length, have adopted a new system whereby passengers pay according to their weight instead of by the mile, as is the usual custom. Each passenger is required to step upon the scales at the ticket office and is charged 1½ cents per pound. This scheme is hard on stout people.

The Marconi Wireless Telegraph Company is not operating commercially upon land or from shore to shore as yet, but has been successful in its recent experimental operations. Daily communication is now held between Cape Cod and Glace Bay stations, a distance of 700 miles, but the Poldhu station in England has not been equipped as yet to permit of transatlantic communication.

Professor Himstedt, at Freiburg University, Germany, states that he has made the interesting discovery that all the products of water and petroleum sources yield a heavy specific gas closely resembling and probably identical with the emanation of radium, whence he concludes that a very large number of bodies possess the quality of emitting a kind of Becquerel ray. A discovery of this kind would materially cheapen the production of radium.

The Williamsburg bridge across the East River, New York, is one hundred and eighteen feet in width, as compared with eighty-five feet, the width of the Brooklyn bridge. It also has two decks instead of one, two foot walks, each ten and one-half feet in width, two bicycle paths, each seven feet wide, four trolley tracks, two elevated railway tracks and two roadways, each twenty feet in width. The old bridge has one promenade fifteen feet wide, two roadways, each eighteen feet wide, and each giving half of its space to the trolley tracks, and two elevated railway lines. The trolley lines on the new bridge will greatly increase present facilities, as there will be four tracks running in a space especially devoted to their use, thus providing facilities for operating three hundred and fifty cars an hour and handling 70,000 persons traveling in both directions, as against 40,000 an hour on the Brooklyn bridge. Trolley cars will also be free from trucks, wagons or carriages, and the

elevated railroad will provide for the carrying of at least 29,000 persons in one direction every hour, or 58,000 persons going and coming across the bridge, thus raising the maximum to 128,000 an hour.

A British expedition has, after a long march, invaded the ancient and mysterious land of Thibet, but has not found the Central Asians particularly polite or cordial, although the desire is to promote trade relations with them. The Thibetans strongly objected to the telegraph line which the expedition laid as it advanced, and it is believed that they made an attempt to destroy it.

The new barbed-wire telephone system radiating from Chester, east of Spokane, Wash., has been opened. The new telephons system is independent of the Pacific States Telephone Company, but connects with it at Chester. The farmers have an exchange of their own at Chester, from which the lines to different farmers radiate. There are already eleven subscribers, with sixteen miles in operation, the longest of which is eight miles.

Tests of an invention by Professor Michael I. Pupin, of Columbia University, for "strengthening sound waves" are being made by the New York and New Jersey Telephone Company. Thus far results are said to be satisfactory. The system discovered by Professor Pupin provides for coils wound on wire at regular intervals on a circuit. It has been installed on special underground lines, extending to Kingsbridge, in Manhattan, from New York to Elizabeth and to points on Long Island.

It not infrequently happens that, in any new development, some minor detail gives more trouble than all the rest of the apparatus. In this respect, automobiles are notably weak in two points. Tire troubles are probably responsible for the greatest number of breakdowns, and the tire itself requires constant watching and care. The other weak point is the apparent lack of an entirely reliable igniter. At the recent motor car trials, held in London, England, in September, under the auspices of the Automobile Club of Great Britain and Ireland, no fewer than forty-one per cent of the cars that stopped did so on account of trouble with ignition.—Electrical Review.

The experts who witnessed the experiments in wireless submarine signaling conducted between New York and Boston are so well pleased with the results that the Government will probably equip many more of the lightships with the submarine bells, providing the owners of steamship lines will put the supplementary apparatus on their boats. Universal adoption of the system would greatly diminish the danger of collision or running aground during fogs, as it was demonstrated during the recent tests that the warning sounds from submerged bells could be heard plainly for at least seven and a half miles.

A new type of incandescent lamp filament has recently been perfected by Dr. Just, of Vienna, the essential feature of which is the use of bornitrate B ( $\text{NO}$ )<sub>3</sub> as material for the filament. The lamp gives a light similar to that of the ordinary filament, and tests have shown an average life of 300-400 hours. It is stated that the cost of manufacture is not greater than that of the ordinary lamps. Up to the present only lamps of 50 and 100 volts and 35 cp have been produced. The most important feature of the lamp is its high efficiency, it being stated that the lamp operates satisfactorily at 1.9 watts per candle-power.

The problem of securing electrical energy directly from the combustion of fuel without the intervention of power to oscillate the dynamo or of the action of chemicals and metals has been accomplished by James H. Reid, of Newark, N. J., according to his pretensions and the assent of a number of electrical engineers and scientists who have examined his apparatus. The plant is set up in a commodious brick foundry building, where rooms are set apart for machine shop, engine room for power for propelling heavy machinery, chemical laboratory and dynelectron room, for Prof. Reid thus names his discovery. The dynelectron room is a large chamber on the ground floor, absolutely empty, save for the experimental plant and the attendant impedimenta. The apparatus exhibited consisted of a big tank for the storage of compressed air and gas, a small steam boiler, a gas retort and two dynelectrons, or electrical generators. The fuel used was culm, or coal dust and street sweepings, which were placed in the gas re-

tort and produced a gas. This gas was piped under air pressure into the dynelectrons. As it passed through the dynelectrons the gas generated a current of electricity equal to one-tenth horse power.

A railway company in Illinois has planned an innovation for the farmers along its line. It has rigged up a portable motor, and whenever any of the farmers want power to run a threshing machine, shredder, wood cutter or other machinery the motor will be set up in the farmyard or barn and connected up with a portable wire connection to the lines of the railway. It is claimed that this will afford the farmers a cheap power for grinding and other uses. The railway people will also undertake to permanently afford a lighting plant for the farmhouse and barns.

#### A NEW PLEA FOR SYMPATHY.

A number of employers have discovered a new plea for public sympathy and support in their relentless war against labor unions. A short time ago many newspapers devoted considerable space on their first page, to print a harrowing tale of how a non-union man had been driven to highway robbery in order to buy bread for his starving wife and family. He was unable to secure work because he did not belong to the union.

According to the newspaper stories the man, James Howard by name, was a painter, and he said, when arrested: "I was thrown out of work when the union men said they would strike unless I joined the organization or was discharged. I tried to get work, but wherever I went they asked me if I belonged to the union. They refused to employ me."

We can not help but sympathize with any man who finds himself out of work with a hungry wife and family depending upon him, whether he is a non-union man or a union man. But the incident raises a number of interesting questions, since the opposition forces have brought it out as an argument against the "tyranny of labor unions."

After hearing the man's story the police captain, according to the reports, gave money to help the family. Where were our "law and order" committees? Where was our committee for the "suppression of

crime?" Where were our employers' associations who "protect" the non-union men? Why did the man not join the union in preference to becoming a highwayman? Was it a question of "principle" with him? Is it more desirable that men should be thieves than union men? If not, why all this sentiment and gush about the poor, unfortunate, non-union highwayman?

The man, we suppose, was an ordinary thief, driven to that, probably, because of conditions that the labor unions are trying to eradicate. Union men do not become highwaymen when out of employment. The union sees to it that their families are not in want. But why do the employers, who profess such a love for the non-union man, allow him to follow his natural bent, and prey on his fellow-men? Why can not they help him from the enormous sum they say they have to protect him?

When a recent street-car strike was settled, how did the company treat the non-union men who went to work during the strike? It put them all on the "extra" list. Every man who struck was reinstated in his former position. Some of the non-union men left the city, a few were arrested for burglary, some few were arrested on orders from police in other cities, as they were fugitives from justices for past offenses, but the company stood by none of them. This is the protection the employers boast of giving their non-union employees after using them to defeat the honest purposes of their fellow-men. How long will it take the non-union man to open his eyes?—The Wood-Worker.

#### LARGEST IN THE WORLD.

The largest suspension bridge in the world has just been completed and opened between New York City and Brooklyn. It outclasses the famous "Brooklyn Bridge," which has stood for many years, as an example of this class of engineering. The new bridge will accommodate two tracks for elevated trains and four tracks for trolleys, besides foot walks, roadways for teams, and bicycle paths. It is a double-decked bridge and it is estimated that 128,000 persons can be transported across this bridge both ways in an hour. The construction of the bridge was begun in April, 1901.



## ELECTRIC LIGHT AND GAS ENGINE PLANT

BY FRANK C. PERKINS.

*(Courtesy of "Electricity," New York.)*

THE city of Uster, near Zurich, Switzerland, has a large number of small industries using more or less power, and it became evident that a lighting and power plant would be of great value in that vicinity. The installation was supplied with apparatus by the Maschinenfabrik Oerlikon of Oerlikon, Switzerland. It was deemed most advisable to utilize gas-engine-driven electric generators, not only on account of their great simplicity and entire absence of boilers and their accessories, but also on account of the high economy obtained. The

chines of the Oerlikon type, having a capacity of 80 horse power. The generators have each two commutators, each of which supply 200 amperes, while the speed of the machines are 560 revolutions per minute. The pressure at the terminals can be varied from 125 volts to 175 volts, and in charging the batteries series or parallel connections may be used. The armature core of these machines are 520 mm. in diameter and the width 360 mm. The slots in the armature are 116 in number with a section  $6.5 \times 2.4$  mm. Each slot carries two conductors of

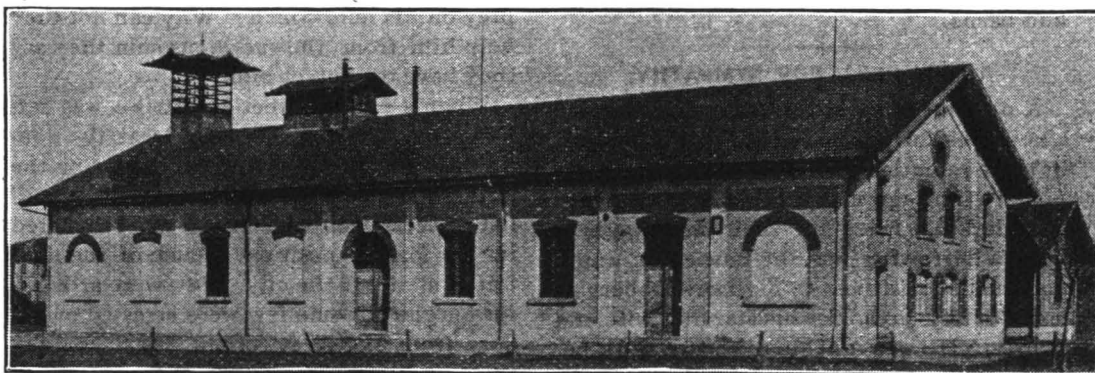


FIG. 1.—CENTRAL POWER STATION AT USTER.

central power station included a building large enough to contain the gas plant, an engine and generator room, a storage battery plant, a coal and gasometer room. The power plant at Uster is seen in Fig 1. The interior of generator and engine room, which covers an area of 234 square meters, is seen in Fig. 2, while the gas generating plant may be noted in Fig. 3, and covers 117 square meters.

The gas generating plant has a capacity of 125 horse power and was installed by the Maschinenfabrik Deutz, who also supplied the gas engine now in operation. Both of the gas engines are of the horizontal, single-cylinder type, with a normal capacity of 80 horse power and a maximum capacity of 100 horse power. The generators are driven by the gas engines by belt transmission and heavy fly-wheels are employed for obtaining steady motion. The electrical generators are direct current shunt-wound ma-

chines of the Oerlikon type, having a capacity of 80 horse power. Each commutator has 116 segments of pure copper insulated with mica .6 mm. in thickness. The field magnet consists of four coils connected in series, each coil having 968 turns in 16 layers, the conductors being  $2.2 \times 2.9$  mm. in diameter.

The storage battery plant consists of two sets of accumulators, each consisting of 70 cells with a capacity of 800 ampere hours. The light and power distribution circuits are installed on the three-wire system of 250 volts pressure. The motors are operated upon the 250 volt circuits and the lighting service upon the 125 volt. There are several thousand incandescent lights now in operation at Uster of more than 30,000 cp., while the streets are lighted by arc lights of 9 amperes each. The motor service is quite extensive, from one to five motors being employed in each of the factories, ranging in power from 1 to 20 horse power, the total

FEB 1904

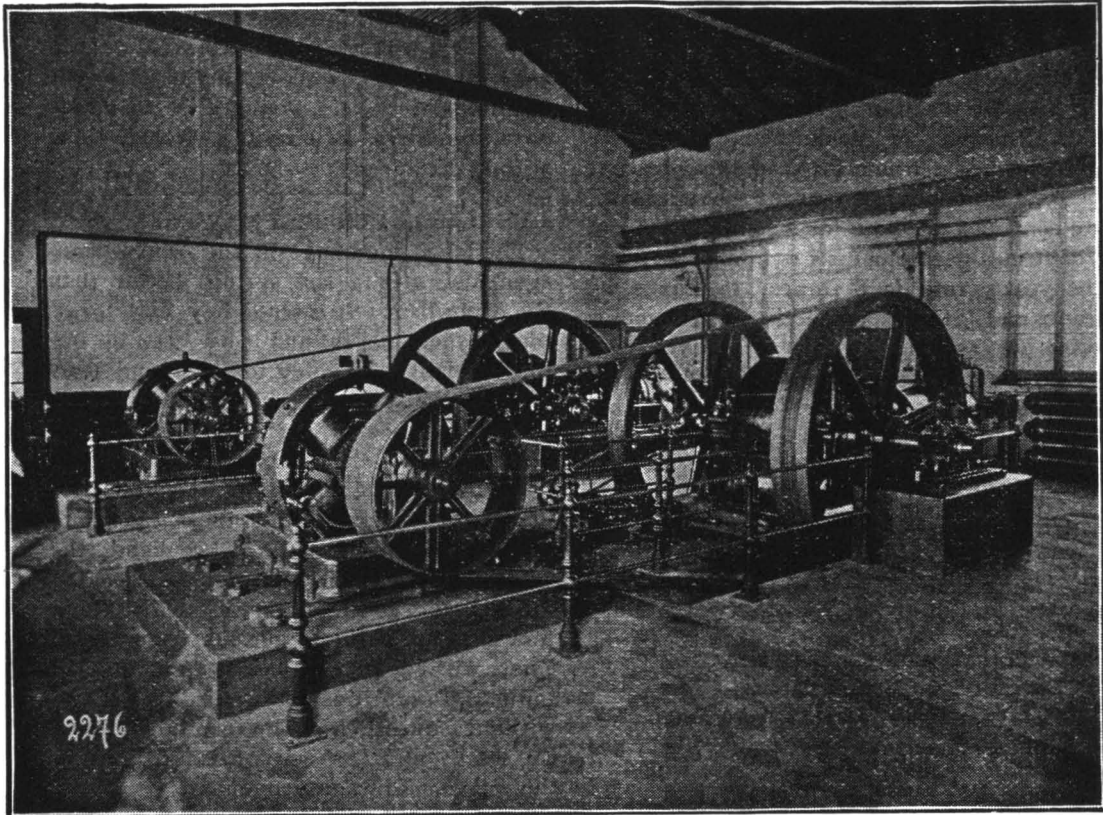


FIG. 2.—GAS ENGINE AND GENERATOR ROOM IN POWER PLANT AT USTER.

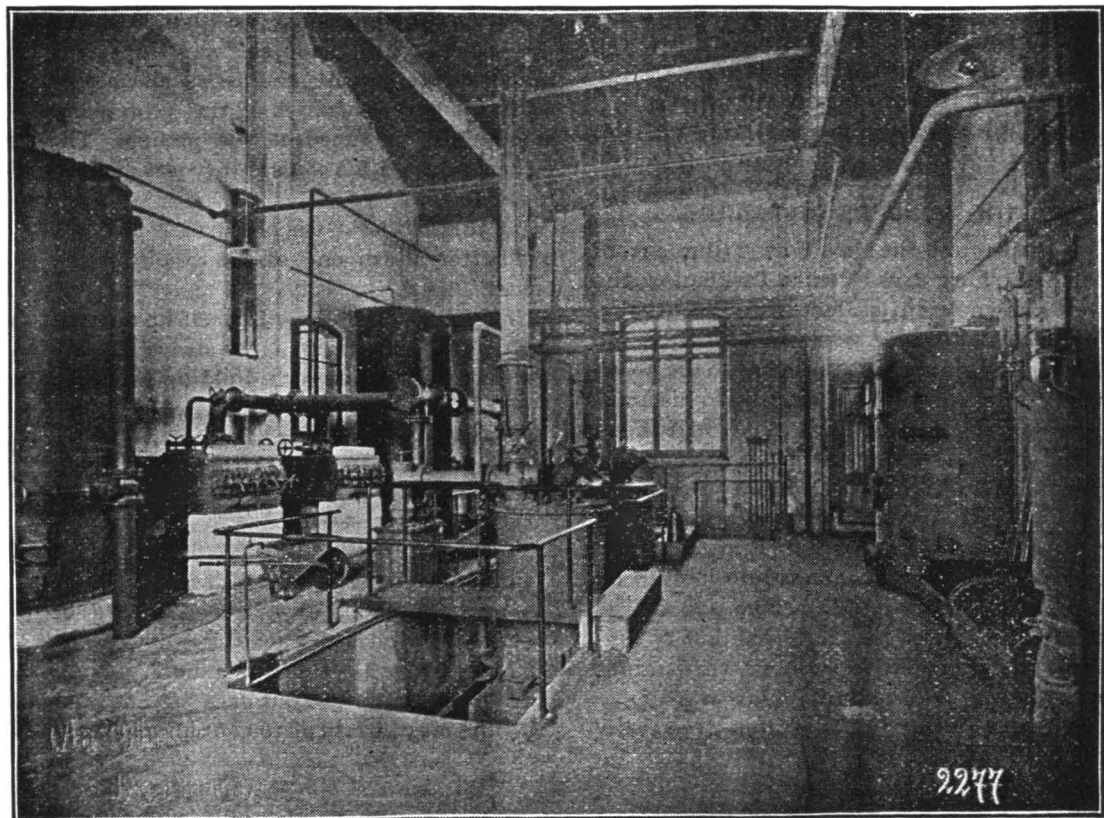


FIG. 3.—GAS GENERATING PLANT AT USTER POWER HOUSE.

being in the neighborhood of 140 horse power. The accompanying illustration, Fig. 4, shows a 20 horse power motor at Uster driving file machinery in one of the shops.

The charges for incandescent lamps are 1.2 centimes per hour for 5 cp. incandescent lamp, 2 centimes per hour for a 10 cp. lamp, 3.2 centimes per hour for a 16 cp. lamp, and 5 centimes per hour for a 25 cp. lamp, while the yearly rate is 8 francs, 16 francs, 25 francs and 40 francs, respectively. The motor rates are 15 centimes per effective horse power hour with a discount ranging from 1 per cent to 20 cent, as the size of the motors increase from 9 kw. to 18 kw.

#### THE KINGLINESS OF TOIL.

It isn't always best to choose

The "line of least resistance ;"

The things you can't afford to lose

Are captured by persistence.

The arm that never strikes a blow

Gets puny, weak, and flabby ;

The soul that seeks its ease, we know,

Gets feeble, shrunk, and shabby.

'Tis manhood's heritage to strive

For what is worth possessing ;

And few are ever known to thrive,

Who wait for Luck's caressing.

The sturdy oak must seek its strength

Deep in the old Earth's soil ;

And man must earn his crown, at length,

Through the kingliness of Toil.

—George W. Hatch.

#### THE WONDERS OF RADIUM.

A dispatch to the New York Tribune from St. Petersburg says : Prince Tarkhanov, the well-known scientist, lecturing recently before the Military Association, made some interesting statements in regard to the possibility of radium. He presented to his audience two cancer patients who had been cured of malignant growths on the face by the use of radium, and expressed the opinion that the problem of determining the sex of unborn children, which Prof. Schenck had failed to solve, will shortly be solved by the aid of radium. The prince added that he had prevented the development of hydrophobia in dogs inoculated with rabies virus by means of radium.

When large quantities of radium were avail-

able the prince contended the whole system of modern welfare would be revolutionized, as powder magazines, whether in forts or in the holds of vessels, would be at the mercy of radium rays, which could explode them at long distances.

#### LABOR MEN BEST MANAGERS.

The labor men have on the whole managed their affairs (last spring) better than the capitalists. It is true they have overplayed their market and it has been in imminent danger of going to pieces and leaving them with scant employment, but they appear to be stopping just short of the critical point. Certain of the union leaders have discouraged recent attempts to start or maintain strikes for which there was no adequate reason. On the other hand, the capitalist class carried their operations too far long ago, and it is a question with them how they are going to get out from under. There will be an enormous liquidation of industrial securities in the next year or two without question. The capitalists have the stocks, and the employees are getting the wages.—Chicago Economist.

#### CRUSHING.

The youth had just left college, and his ambition, like his collar, was high. At home the all-engrossing subject was the young man's future career, and he was discussing with his parents which of the professions stood most in need of his genius. The father's idea of his son's ability was disgustingly low.

"I think," said the old man, "that you had better adorn one of the stools in my office."

The young man drew himself up and the high collar grew tight as he strove to swallow his righteous anger. Folding his arms, he asked :

"Is thy servant a dog?"

"No, but you'll grow!" came the crushing response.

#### HIGH DUES.

The Chicago News has a knock-out blow for the man who is always complaining of "high dues" and wants a cheaper union. It says: "You can get more wind out of a 10-cent fan than you can out of a \$10 one, and the same may be said of 10-cent union man."

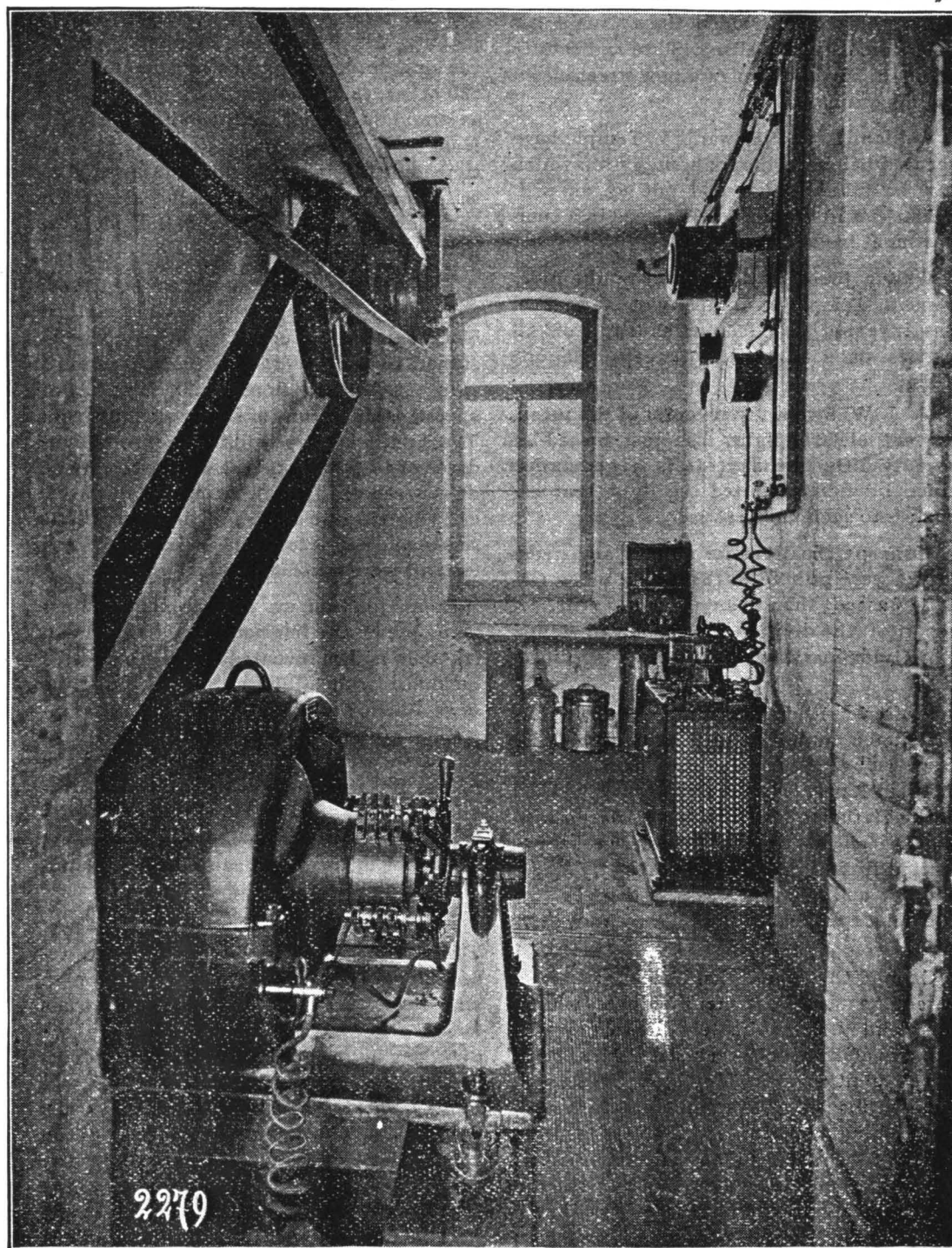


FIG. 4.—TWENTY HORSE POWER ELECTRIC MOTOR OPERATING FILE MACHINERY AT USTER, SWITZERLAND.



## NOTES ON INVENTION.

A Findlay, Ohio, man, Enos Curtis, has been successful in selling State and county rights in his invention of a new street cleaning apparatus.

William T. and Edward Y. Temple have secured patent rights for a buggy top which can be taken down and put up at will. When not in use the top is placed in a compartment made for it.

Walter Jones, in the employ of the Independent Telephone Company of Newcastle, has invented a device for shutting off all parties on a party line except the one called.

Dr. J. W. Swan, the inventor of the incandescent electric light, has just passed his seventy-fifth birthday. It is a generation since he first exhibited the light that has come into such universal use.

More specifications for patents and trademarks were printed in the Patent office Gazette for 1903 than in any previous year. A report of the division shows 31,165 patents, 1,886 trade-marks and 369 design specifications.

Professor Ellershausen, a German, has invented a method of extracting zinc white from refuse slag. He and Professor Sir William Ramsay successfully experimented at the Hafua mines in North Wales, showing that a ton of zinc white can be extracted from fifteen tons of slag by a far simpler and cheaper process than is now used in a roundabout production from spelter.

George C. Zwerk, has been granted a patent on a new cement shingle, which, it is claimed, will ultimately displace wooden shingles and possibly even slate. Mr. Zwerk has a patent covering not only the shingle but the machinery for making the same. These shingles are made of Portland cement, and can be made in any shape or color. They are about the same thickness of the ordinary shingle, but are, of course, much heavier. A winter test with them has shown that they will withstand the frost much better than the ordinary slate shingle. In providing against breaking, as in the case of slate shingles, which necessarily have no al-

lowance for sheering due to winds or other causes, or to contraction from heat and cold, lies the most advantageous feature of this patent. Mr. Zwerk has inserted a wire in the shingle, and this hooks from one onto the other, thus allowing such slight motion as would be desired, and avoiding breakage from these causes. In point of cost it is anticipated that they can be manufactured to sell at practically the same price as wooden shingles and cheaper than the cheapest grade of slate.

The floating buoy invented by W. S. Crouch, of Tacoma, has been sold to a New York man for \$300,000. Crouch's buoy is designed to carry a line to the shore from a ship. It works automatically, and is of special value in time of storm or shipwreck. The device is shaped like a top, and hundreds of tests show that it will invariably be driven ashore by the beating of the waves, carrying the line as it goes. A series of tests was made, and it is claimed that out of 725 tests all were satisfactory.

J. W. Johnson, an Americanized Chinaman, one of the few naturalized Chinamen in America, has invented a new predigested breakfast food. Johnson's discovery is, he says, a happy combination of his Chinese instinct and his American training. It is a scientific preparation of rice, by which the flakes are made crisp and palatable without the usual boiling operation. The inventor has been in business in Sandusky, Ohio, for many years manufacturing laundry machinery, and he is well to do.

It is announced that a citizen of Dallas, Tex., has, after long experiment and research, succeeded in making a solution in which when the most inflammable materials have been soaked to saturation they are upon drying rendered absolutely fireproof, and when subjected to great heat will merely char. Paper, cloths, light woods, carpets and upholstery, in short, any of the things that might to advantage be fireproof, can have lighted matches thrown around in them and flames applied without harmful effect. Exhibitions have been given, it is stated, and in many places in Texas theaters and opera houses have been furnished with curtains and scenery treated with the solution on the guarantee of the maker of the

chemical that they will not burn. It is claimed by the discoverer that cloths and materials may be rendered fireproof with far less expense than the use of asbestos requires and with the advantage that any cloths so treated may be washed thoroughly with no effect on the chemical applied. Curtains will roll, it is claimed, without breaking and cracking. M. A. Weslow is the discoverer of the chemical combination.

A patent on an arrangement which will greatly facilitate the handling and testing of eggs was granted to John Scrimgeour, jr., and John Oberdorf, of Pittston, Pa. The patent, which was applied for in July, has been named the Eggs-ray machine by the patentees. At present in testing egg to find their age it is necessary to handle them one by one, but with the patent just granted the three dozen eggs in each layer of an egg crate can be lifted at once from the crate, and, after being glanced at, deposited in another crate.

All the property of the International Wireless Telegraph Company, including its patents, etc., have been transferred to the American De Forest Wireless Telegraph Company. By this action the International Company is wiped out of existence. It was originally organized as the American Wireless Telephone and Telegraph Company, capital, \$5,000,000. It licensed six subsidiary companies, the Northeastern, the Federal, the Atlantic, the Northwestern, the Pacific and the Continental, \$5,000,000 capital each. Stock in the seven companies was sold to the public and then they were taken in by the parent company.

George B. N. Dow, of Manchester, N. H., has made a number of inventions. His latest one, is likely to appeal directly to smokers, for it is a pipe which can be cleaned very easily and quickly, and which also can be made safe to be taken into barns or other places full of inflammable material. The stem is set in a large hollow plug which fits tightly at the base of the bowl. When it is withdrawn the bottom of the bowl, where the nicotine collects, can be cleaned easily and quickly. The plug also fits the mouth of the bowl, and placed there serves effectively to prevent any sparks falling from the pipe, no matter in what position it may be held.

An Indianian wants to exhibit at the world's fair the most unique feature yet offered. He promises to generate electricity from the fur of black cats. He will have a number of these cats chained in a row and will have their backs automatically stroked by machinery, and the electricity thus generated from each tabby will be transferred by means of wires to a storage battery and thence conveyed to the dynamo, which is movable. The inventor is from Posey County, and he claims to have been experimenting with the companion of witches for many years. His name, however, has not been given out, and the management has not passed upon the proposition.

Captain Frank Gray, of Muskegon, Mich., the inventor of the automatic sprinkler, and an expert on fires in theaters, says the loss of life would have been nothing if sprinklers had been installed at the Iroquois Theater, Chicago. The fire started just where the sprinklers are located in the East, and would have extinguished the fire and the audience would have been ignorant of the fact. He says: "A patent sprinkler, if properly installed, and a sufficient water supply on hand, would put out a fire in an instant, because the pipes will sprinkle where fire fighters could not reach. A fire on the stage among scenery is an easy fire for an extinguisher to handle, from the fact that scenery, as a general rule, stands in an upright position, consequently the water would cover both sides of the scenes at once."

The United States postal authorities are about to test the merits of a new mail catching device, the invention of Charles Hawkins and Daniel Haley, of Cincinnati, Ohio. The United States mail authorities were looking for a new device to equip fast trains. Hawkins became interested through the efforts of Haley, and both being machinists they started to work on their idea in a practical manner, and made not only a mail catcher, but an automatic coupling with it that would deliver mail. The patent also obliterated the danger to mail clerks. Many of the clerks have been killed by coming in contact with the "catchers" at a time when they were reaching out to catch mail with the train going at a high rate of speed. No reaching or "looking out" is necessi-



tated by this invention. The mail clerk remains inside his car, out of view, and can open the door at his convenience and take the mail. Mail can be delivered and picked up at a station at the same time, even if a train were going at a rate of eighty miles an hour or more. The inventors promise that if their system is adopted the Government mail service will be able to cut expenses for wear and tear about \$30,000 each year, besides obtaining many other benefits.

Frank J. Greene, an electrical engineer, of Detroit, Mich., has perfected an invention which is intended to prevent railroad collisions. Briefly described, the device consists of an instrument which is placed on the top of the locomotive cab which instantly notifies the engineer as soon as another locomotive or train approaches on the same track within a mile. By wireless telegraphy, the approach of the other train is discovered by the extinguishing of a white light in the cab, the lighting of a red light, and the ringing of a bell, in case the danger is in front. If the approaching train is in the rear the white light disappears, a blue light is turned on, and a bell rings. In addition to these safety devices, the instrument records the approach of a train on a tape record which gives the time of the registering. The weather does not affect it at all; in fact, it works better in a foggy, wet atmosphere than otherwise.

A dinner consisting of soup, a meat and vegetable course, and a dessert course, cooked in Mansfield, put on the train and sent to Toledo, a distance of 100 miles, where it was received piping hot, is a unique feat. Yet this was accomplished in a manner satisfactory to everybody concerned, by Mrs. Bertha L. Grimes, of Mansfield, who has for two years been making a specialty of serving hot dinners in this manner for Mansfield people. Keeping boarders by telephone is the way she describes it. She daily supplies the wealthier classes of Mansfield with their dinners from her home, which is one and a half miles from Mansfield. A domestic family two years ago, when the girls developed a craze to work in factories rather than kitchens, first led Mrs. Grimes to take up this work. She called into requisition a patent bucket invented by a New Haven, Conn., man, but upon which

she has since put many improvements which she has patented. It is about three feet high and made of galvanized iron of double thickness, between the walls of which is inserted a substance similar to fuller's earth, after which an aluminum shell is placed in the cylindrical compartment, its base resting on a soapstone heater incased in zinc. There are five pans, as well as a nickel soup dish, all placed in a wire layer rack inside the aluminum case, and all are covered by a copper-lined close lid. Except in case of special orders the customers do not know what they are to receive save that it will be a three-course meal. One bucket contains sufficient for four persons and costs \$1. Mrs. Grimes is the first woman in the United States to do this work on an extensive scale.

A talking machine that has created no little sensation is that just produced by Dr. R. Marage, a well-known member of the French Academy of Medicine. It is an interesting device, which reproduces with perfect accuracy the sounds of the human voice, not, as in the case of the phonograph, by merely repeating words spoken by persons, but by a process which is purely mechanical from start to finish, and in which no word is spoken by any human being. The sounds are produced by a system of vibration, says the London "Sketch." Attached to the machine is a series of plaster heads, five in all, representing the five vowels, a, e, i, o, u. They are each a perfect model of a person's mouth, fitted with pliable lips and perfect teeth. Air currents, set in motion by the machine, are made to pass through the dummy mouths, which are fitted with sirens. Through his invention Dr. Marage has discovered that the steam sirens used on board ships can be so constructed as to imitate certain sounds. Thus different phonetic syllables may be obtained which could be used to form an international alphabet. By an ingenious contrivance attached to this wonderful instrument it is possible to see reflected in a tiny mirror the vocal chords of a singer. By the same device one can also trace their action and see how, as the note gets higher, the aperture becomes less and less, until the top note is reached it becomes almost closed. As the force of air current expelled becomes

stronger the opening decreases in size. It increases as the force becomes less. The smaller the aperture the greater the vibration. This is how human beings get their singing voices. "There is no mystery about it," declares Dr. Marage. "It is a purely mechanical process, based on known laws of higher mechanics."

After a thorough test the Thomas A. Edison storage battery, which is looked upon as one of the most wonderful inventions of the electrical wizard, is declared to be a complete success. It is claimed for the battery that it will weigh less than half as much as the storage battery now in use and will last many times as long. The battery has recently been given a practical test by W. Hibbert, who announces the result as coming up to the most sanguine expectations of the inventor and his friends. The active materials in the battery are nickel oxide and iron, and the electrolyte is a 20 per cent solution of caustic potash. The construction is thoroughly mechanical, and the lightness is obtained without any sacrifice of durability. The battery with which the test was made weighed 700 pounds. With this battery a 32-mile automobile run was made against a head wind all the way in one hour and twenty minutes.

By the invention of a new type of locomotive, already christened the "pedrail," the well-known British engineer, Braham Joseph Diplock, claims to have solved the problem of hauling heavy loads by steam power over the roughest country, without the necessity for rails or a previously prepared roadbed. To overcome the difficulty of steering the machine over an unequal road, the inventor has devised a wheel, consisting of fourteen movable spokes, sliding in bearings in the axle, and so adjusted as to lengthen or shorten themselves automatically, as it is desired to pass over high or low spots in the road. These spokes terminate in large rubber feet, which tend still further to keep the boiler in a horizontal position and prevent the jarring of the machinery. Mr. Diplock maintains that the engine can be easily run upon steep side hills without difficulty, and that by its use one of the most serious objections to traction engines in rough districts will be obviated in future.

The elevated car, to run on a single overhead rail, is the the product of C. N. White, a mechanical genius of Nottingham, Ind. Single overhead rail cars have been tried with success in Europe, particularly in Germany, but the White car is said to be a great improvement over any foreign invention. The speed that can be attained is claimed to be beyond ordinary belief, owing to the small amount of friction and the small liability of accidents. According to the plans of the inventor, the car will be elevated a distance of several feet above ground, and the supporting cable to the single rail, it is said, will do away with all bridges. The power is obtained from electric energy, and it is said that a speed of several hundred miles an hour will not be an impossibility. In addition to an elevated car, there is provided an automatic switch, which, it is said, will work wonders on steam and electric roads. By the device the switches are opened and closed automatically by an arrangement on the car itself.

A Wisconsin genius has invented an appliance for printing the names of mail subscribers on newspapers at the same time the papers are printed and before they go to the folding mechanism of the press. It is an automatic, high-speed address printing machine, and is attached to perfecting presses. The machine consists of a printing cylinder or wheel, which is equivalent to an extra printing cylinder of the press. As the paper passes over the roller the printing process is accomplished in the same manner as that done on the press itself, except that this printing wheel revolves intermittently instead of continuously. The machine utilizes linotypes made by the typesetting machines. It automatically takes the bars of metal from the storage galleys, inserts them in the printing wheel, and, after the printing operation is completed, returns them to the galleys, that are in the cabinet. It requires only one operator to place the galleys upon the machine, set the feeder in operation and remove the galleys as they are filled. The machine has a capacity of 24,000 separate addresses an hour. It is geared to the press and all its movements correspond to those of the press, doing its work automatically.

**COMMUNICATION WITH OTHER WORLDS.**

BY V. L. FAUSEY.

The idea of communicating with the inhabitants of other worlds is very aged, though always it has been regarded as a dream unrealizable. And yet, with the ever-increasing knowledge of the heavens its hold upon our imaginations has been expanded. The scientific achievements during late years have intensified it to such an extent that it seems as if it were destined to become a reality. Who knows?

It is not astonishing to find persons who ridicule the very thought of communicating with a planet, and their argument is that there is little probability of their being inhabited, but there seems to be two planets—Venus and Mars—capable of sustaining life such as ours, and why may they not be inhabited?

The argument is made that it is beyond human power to convey signals to the almost inconceivable distance of fifty millions of miles or more.

Those who have become enthused on this subject have reposed their faith in the light-ray as the best possible medium of such communication. Very true, waves of light of immense rapidity and of sufficient intensity can penetrate space unlimited. An electrical oscillator, delivering energy at a rate of 75,000 to 110,000 horse power, was designed by Tesla, and used by him in investigations along this line in 1899 on Pike's Peak, in Colorado, when, as he now believes, he was the first to experience the greeting of one planet to another. The experiments were discontinued for a time, and since then a mighty power has leaped into being out of mere nothingness; an infinite force conceived within the womb of nature when our solar system was an infant among the whirling worlds, has at last whispered something of its mission on earth into the ears of scientists, and in the bed of uraninite has been born—Radium.

Power and light flying out in every conceivable direction at the rate of billions of explosions each second from a source which regenerates itself with the same immense rapidity that it disseminates its effect, leads us to speculate on the wonderful, even unthinkable, things that we may be enabled to do.

Radium will melt its own weight in ice every hour in a thousand years without losing one atom of its inherent power. It will give out light in the same ratio, and for the same time, it supplies its own light, builds its own strength. Think of it; the light of the unit strength of radium would consume your body and render you as non-existent as if you were never born.

Thus is it demonstrated that we have an unlimited power by which we could emit light-rays of sufficient strength and rapidity to penetrate a distance ten times that to either planet that we have supposed is inhabited.

At the present stage of progress there would be no insurmountable obstacle in constructing a machine capable of conveying a message to Mars, nor would there be any great difficulty in recording signals to us by the inhabitants of that planet. Communication once established, even in the simplest way, the progress toward intelligible communication would be rapid. How soon will it come?

That it will some time be accomplished must be clear to every thinking person.

**CONSERVATISM IMPORTANT.**

The trade union that is conservative in its action, fair in its dealings and mindful of the rights of others need have no fear of the present agitation against organized labor. Fanatics, capitalists and union haters have always fought the union and have made periodical efforts to surprise and disrupt them, but without avail. What their individual and combined efforts have failed to do in the past can not succeed in the future. Not many years ago it was a crime to belong to a union. We outlived the vicious past, and growing to our present splendid standing in the face of strenuous opposition indicates that nothing can prevent our continued growth and prosperity. In view of the present attitude of a portion of the manufacturers, capitalists and all round union haters it behooves all members to put a shoulder to the wheel and each do their part in combatting the efforts of the foregoing stated interests to disrupt or retard the growth of trades unionism.—Cigar Makers' Journal.

### OLIVER EVANS INVENTED FIRST HORSELESS WAGON.

The world moves slowly until it gets a good start, and then it goes with a whiz.

Which may be the reason why the world has gone ahead faster and further during the last six thousand years than it did during the previous six million years of its existence.

As the Creator of the world had to wait, and no doubt worry, a long, long time before it became fairly started, it is not to be wondered at that men in later times who seek to introduce something new and strange must also wait and worry before it gets a start.

Skipping the hundreds of inventions of the last thousand years, we come to the automobile, which in some respects is the latest of the really great innovations, the latest of the epoch makers, so to speak, because it does mark an epoch in road transportation.

We call it a new thing, but it is not. As early as 1769, one hundred and thirty-four years ago, Joseph Cugnot, a French artillery officer, had a road wagon in operation transporting artillery.

It was not a success, but it set an example which its successors of to-day are still prone to follow, to wit, it ran away, and, butting into a stone fence, wrecked itself. Rude road wagons were also devised by Englishmen a few years later, and one made by Matthew Boulton, partner of James Watt, frightened horses and people just as others do in this day and generation.

In the year 1751, eighteen years before Cugnot's wagon had appeared, Oliver Evans was born at or near the little town of Newport, in the little State of Delaware.

Oliver's father and mother were thrifty people of the plain sort, who wanted their boy to become a farmer, and so he was apprenticed, but Oliver's mind was on mechanics, especially on engines that could take the places of horses in drawing wagons, and he left the farm and went home to potter about a blacksmith shop just around the corner from his house.

In time, by the aid of the blacksmith, he had constructed an engine model that worked. But he had no money, and he now

began to feel the burden of the poor inventor.

He knew what he could do, what he had done, but there was no man with money who thought as Oliver did, and he struggled along as the moneyless must.

He did not confine himself exclusively to steam engines or road wagons, but invented, among other things, a process for flour making, which almost revolutionized that manufacture, and made him a little money, which he spent at once on developing his other inventions.

He also made the first high-pressure engine—a long step in advance of the Newcomen and the Watt engine.

At 18—that is, in 1769, Cugnot's year—he went to Philadelphia as a wheelwright's apprentice. Philadelphia was no more rapid in those days than it is reputed to be now, and Evans did not get on very fast.

In some mysterious manner he managed to eke out an existence, and even to marry, but he could not get his horseless carriage on the road, nor could he prevail upon capitalists to assist him in building a railroad from Philadelphia to New York—one of the great dreams of his life.

Blind as the world was, this struggling inventor and visionary saw the true light ahead, and of it he wrote to a newspaper:

"The time will come when people will travel in stages moved by steam at fifteen to twenty miles an hour. A carriage will leave Washington in the morning, breakfast in Baltimore, dine in Philadelphia and sup in New York the same day.

"Railways will be laid on iron or wood, or on smooth paths of broken stone or gravel, to travel as well by night as by day. Posterity will not be able to discover why the Legislature or Congress did not give the inventor such protection as might have enabled him to put these great improvements in operation sooner, he having asked neither money nor a monopoly of any existing thing."

Evans was right. Posterity has not been able to discover the why or wherefore, nor will its powers of discovery be any larger a hundred years hence. The way of the inventor is up hill all the time, past, present and future.

Evans was dead and buried nearly a dozen years before Peter Cooper went down from New York City with an engine he had built at his glue factory, and proved to the managers of the Baltimore and Ohio Railroad that an engine could successfully run over the crooked thirteen miles of their track. And he had been under ground a quarter of a century before his dream of a road between New York and Philadelphia came true.

In 1786 the Legislature of Maryland granted him the right of way over roads in that State for his horseless wagon, but it was not until 1804 that the actual horseless wagon was demonstrated. In that year the Philadelphia Board of Health wanted the water cleaned about the docks, and Evans was given a commission to build a machine for the purpose. He put his ideas into iron and turned out his "Orakter Amphibolos," or "Digger," a horseless carriage on the road and a sailless vessel on the water.

He had become so poor that his wife was compelled to spin tow cloth and sell it for the family sustenance, and now, when his wagon was made, it was too heavy, and to reconstruct it the workmen offered their services free to help him out. At last the wagon, the first automobile in America, was completed, and it was put on exhibition at Central Square, where the great City Hall now stands. Here it was run around the square daily and the public was invited to pay a shilling a head to look at it, one-half the money to go to the workmen, the other half to the inventor, not for his support, but to be expended in further improvements.

After the "Digger" had proved that it could go by its own power on land, it was run down to the Schuylkill, where a wheel was rigged at its stern, and it took to the water, going down to the Delaware River and to its destination, sixteen miles, passing all sailing vessels on the way.

The "Digger" answered the purpose for which was built, but it did not open the pocketbooks of the capitalists, and Evans still struggled on.

Spectacled and gray at 40, he was wrinkled and old now, but the spirit was strong within him, and he kept on.

By some means he secured a shop, where he did engine repairing, when he was not busy with his dreams, and he made a comfortable living for his family. But this was too good luck, and on April 21, 1819, his shop was burned to the ground, destroying all his papers and his patterns. It was a fatal stroke to this man of sorrows, but he met it bravely, and went at once to New York to secure some means for re-establishing himself.

There the reaction came, and the New York *Commercial Advertiser* of April 16, 1819, contained, under the head of "Deaths," this notice:

"Yesterday, at the house of Elijah Ward, Oliver Evans, Esq., of Philadelphia, in the sixty-fourth year of his age. Funeral this afternoon at 4 o'clock, from No. 25 Bowery."

That was the end. The body was buried at the old Zion burying ground, whence many years later it was removed to Cypress Hills, L. I., where it rests now in an unmarked grave.

Oliver Evans is forgotten, but his works live after him, and the automobilists of America should find his resting place and erect over it a monument worthy of the man.—*St. Louis Republic*.

### TRAIN RUNS ON ROAD.

Sterling Helig, writing from Paris, says that a new thing in road-hauling has been found. A new thing in mechanics. So new that every one is talking of it. So simple that every one is asking himself: "Why did you not think of it?"

Why do railroad trains run on rails? There are several reasons, but one all-sufficient one would be that without rails they could not turn corners.

You can try it yourself with four or five or six wagons hitched together and a horse or two hitched to the first, to pull the lot. The horses, the first wagon, the second wagon, the third, the fourth and the fifth, all in a row. And all goes well, so long as you go straight ahead. But try to turn a corner. Try to describe an arc. The first wagon gets around all right, behind the horses. The second wagon follows the first—with still greater tendency to pull inward, and the third still more. You are

lucky, if the fourth wagon is not overturned.

Why this happens is so simple that I need not tell you. There is no farmer's boy who does not know it, and it is still easier to tell why railway rails prevent the train from doing the same thing when turning corners.

Up to the present we have never seen road trains upon our highways. And so in France, the land of automobiles, where millions upon millions are invested in the automobile industry, chauffeurs at most pulled one auto with another, one and one only.

Now, in a word, all this is changed. When you come over here next year you will see automobile trains, for hauling freight and produce and for passengers on all of the French highways, for everything that touches this great industry goes quick in France. You will see these trains turn corners as if by magic. You will see two or three well loaded automobile wagons flitting past behind a light little fifty horse-power petroleum tractor.

This sensation of the automobile year in France is the invention of Colonel Renard, one-time dirigible balloon experimenter and later and for many years the director of the (spherical) balloon station of the French army at Meudon. It was Colonel Renard who in 1885 combined with Commandant Krebs, the inventor of a specially light electric motor, to build the cigar-shaped dirigible ballon "La France," and departing in it from the Meudon Park it cannot be denied that they got back to Meudon without touching ground. Thus the name of Colonel Renard will live in ballooning annals.

Now for the automobile train of Colonel Renard. During the past month hundreds of thousands of Parisians and foreigners have gazed on the light sample exposed in the automobile salon. Within a short time it will be running between Paris and Versailles or Paris and Fontainebleau, over the old King's highway.

To glance at it you would say: "Here we have a kind of train consisting of an ordinary fifty horse-power petroleum auto in front, and hitched to it three or four smart, light-running carryall wagons, seat-

ing ten people each. How can such a light auto pull all that? Why don't its wheels skid?"

Its wheels don't skid, because the automobile does not really pull the train. There are really two inventions, or one invention and one discovery.

It is true that all the power and all the direction comes from the front auto. It is like an ordinary auto—almost. It has its motor, its change of speed, its several brakes, but please take notice that out of its change of speed in place of having one transmission, like an ordinary automobile, it has two—one going to the back wheel, as in an ordinary auto, and the other going straight to all the other wagons.

Have you ever seen a chainless bike? You know those slanting cogs? Santos-Dumont's long steel connecting rod transmits by the same curious device the power from his motor, situated in the center of his airship keel, to his screw-propeller at the stern.

In this train you must imagine a sensationally long connecting rod of very rigid steel that runs the whole length of the train on which the wagons are threaded; so to speak. You see it in the profile outline of the train. Look between the auto and the first wagon, or between any two wagons. You will observe what seems to be a double coupling. The top one is this connecting rod.

And so the power is transmitted from the automobile in front by means of this revolving rod to the hind wheels of each of the wagons by means of the cog device of the chainless bike.

You will ask how such a rigid rod can turn a corner? It will be impossible to describe on paper the ingenious contrivance, which in French is called a cardan joint. It is not precisely new, but very likely you never saw it. I will therefore ask you to believe me when I tell you that it permits the rod to be articulated while remaining rigid. You can see a lot of these joints in the illustration always marked "c-j" ("cardan joint").

Thus you understand how the train pulls itself. That is what it does, because the head auto does not pull it, but contains and transmits its force to the back wheels of



each wagon—the same force with which it moves itself, because the long connecting rod necessarily turns with the same force and velocity throughout its whole length. Otherwise it would twist and break, of course.

Thus you know why the wheels of the front auto do not skid, although the train be heavy. It is not doing any more pulling than the wagons behind it are doing. What it does do, besides, however, is to direct the whole train in its course.

I have heard it called a discovery, a device and an invention. I hardly imagine it patentable. When three wagons hitched together are pulled around a corner, why is there that increasing tendency to cut the arc, pull into the center and upset?

Standing round the Colonel Renard road train in the automobile salon, I have heard a thousand incoherent explanations, arguments, disputes, elucidations, demonstrations with and without pencil diagrams on the backs of envelopes and cuffs, exclamations, interruptions, corrections, exceptions, contradictions, objurations and recriminations on this interesting question. During the last month it has divided families and parted lifelong friends. Let you and I risk nothing like it. Explain it for yourself.

Also you can explain why Colonel Renard simply lengthened the couplings between the auto and the first wagon and between each wagon. In each case the cardan joint is directly above the coupling joint. So the train is supple. It can turn.

And it does turn. The long couplings have their length calculated geometrically to aid in permitting the train to turn corners. Note, this would not be sufficient if the automobile at the head of it really had to pull the train. The second or third wagon would go into the inside gutter turning the first corner. But the automobile does not pull the train, as you have seen. It but contains and transmits its force to all the wagons by means of the long connecting rod and the chainless bike cogs.

And there you are.

Every contract for the first high-speed railway to be built in Japan has been let to American concerns, and every part of the equipment of the road will be made in this country.

### A GROUPING OF SOME OF THE X-RAY AXIOMS.

In an X-light tube the space enclosed by the glass walls should vary directly with the rate of using electrical energy in the tube.

In an X-light tube the size of the cathode should vary directly with the rate of discharging electricity from its face, and with the size of the surges.

In an X-light tube the target should be cooled when it is struck by a powerful cathode discharge.

In an X-light tube the target should be placed at focus of the cathode discharge.

In an X-light tube the distance between the cathode and the target should be capable of variation, or there should be an automatic regulator.

In pumping X-light tubes the X-light should not strike the observer.

In pumping X-light tubes they should be enclosed in a non-radiable oven.

In pumping X-light tubes water vapor should be excluded from the pump.

In pumping X-light tubes mercury should be kept out of the tube.

In pumping X-light tubes the removal of the gases is but a part of the work, the value of the tube depending also on the electrical treatment of the terminals.

In pumping X-light tubes they should be hot, and the pump should be warm.

In pumping X-light tubes the necessary amount of gas should be removed from the glass and the interior of the tube before they are electrically taken from the terminals.

In pumping X-light tubes the absence of leaks should be ensured before the electrical treatment of the terminals begins.

In pumping X-light tubes the amount of electrical energy to be afterward used with the tube should be known, the terminals being treated to bear that amount.

In using X-light the source should be in a non-radiable tube box from which no X-light can escape except the smallest beam which will serve the purpose.

In using X-light it should not strike the observer.

In using X-light selective filters should be employed to strain out undesirable radiations.

In using X-light, the fluorescent screen should be covered on the side toward the

observer with a plate of heavy lead glass as a protection from the X-light.

In using X-light with a crytoscope, the walls of the instrument should be non-radiable to prevent the entrance of X-light except in the direct beam.

In using X-light with a fluorescent screen, whether open or enclosed in a crytoscope, the surface of the screen should be held normal to the central ray of X-light employed.

In making photographs by X-light, only the beam should be allowed to strike the photographic plate.

In making photographs by X-light, the central ray of the beam of X-light employed should strike the photographic plate normal to its surface.

In making photographs by X-light, the place where the central ray of the beam employed strikes the plate should be automatically recorded on the negative.

In making photographs by X-light, the position and distance of the source of X-light should be automatically recorded on the negative.

In making photographs by X-light, the object being photographed should be enveloped in a non-radiable covering which will admit only the X-light in the direct beam employed.

In using X-light in medicine, the examination room should be fumigated every night.

In using X-light in medicine, the apparatus should be sterile.

In using X-light in medicine, none should strike the patient except the smallest beam which will cover the area to be examined, photographed or treated.

In using X-light in diagnosis, to avoid undue exposure of the patient, the X-light should be produced in surges, each of the shortest possible duration, with as long periods between as are compatible with a light apparently steady, advantage being taken of the persistence of vision and of luminescence. The more luminescent the salt of the fluorescent screen the shorter the surges may and should be, with moving organs like the heart and lungs.

In using X-light in medicine, the physician should be able to make all the adjustments of the light without removing his

eyes from the images on the fluorescent screen.

In using X-light in medicine, the physician should be able to orient himself in relation to the patient and the source of X-light at all times during an examination without removing his eyes from the image on the fluorescent screen.

In using X-light in therapeutics, its waves should be such as are most absorbed by the diseased tissues.

In using X-light in therapeutics, the waves should be as long as can be employed without injury to the overlying tissues.

In using X-light in therapeutics, the distance of its source from the surface of the body through which the X-light enters should vary directly with the distances of the diseased tissue below that of the surface.

In using X-light in therapeutics, the distance of the diseased tissues below the surface of the body through which the X-light enters should determine the form of vacuum tube to be employed.

In using X-light in therapeutics, the nearer the diseased tissue is to the surface of the body through which the X-light enters, the nearer the source of X-light should be to the nearest wall of the vacuum tube.

In using X-light in treating diseases of the outer surface of the body, the X-light tube should be in a portable non-radiable case from which no X-light can escape except toward the diseased tissues, the tube box being provided with a handle to allow the tube to be moved over the diseased area.

In using X-light in treating diseases of the outer surface of the body, the source of X-light should be at the wall of the vacuum tube.

In using X-light in treating diseases of the outer surface of the body, the area to be treated should determine the area of the tube wall from which X-light should originate.

In using X-light in treating diseases of the outer surface of the body where the vacuum tube is brought in contact with the skin, the area of the wall of the tube from which X-light arises should be cooled.

In using radioactivity, the source of the energy should be in a case from which no

radioactivity can escape except in the required direction.

In using radioactivity, the investigator should be protected from the energy.

In using radioactivity in medicine, the beam of energy striking the patient should be the smallest which will cover the area to be examined, photographed or treated.

In using radioactivity in medicine, the distance of the source of energy from the surface of the body through which the energy must pass should vary directly with the distance of the diseased tissue below that surface; the nearer the disease to the surface the nearer the source of energy should be to the surface.—*Electrical World*.

#### **SUES BELL, DENYING HIS INVENTION OF 'PHONE.**

Testimony tending to deprive the inventor—A. G. Bell—of the credit of inventing the telephone, and bestowing the honor upon Henry C. Strong, was filed in the United States Circuit Court in the report of the special examiner, who was appointed by Judge Kohlsaatt in 1901 to take evidence in the case in which the Atlantic & Western Telephone Company asks \$50,000,000 damages for alleged infringements upon Inventor Strong's patents.

The defendants in the suit are the American Bell Telephone Company, the American Telephone and Telegraph Company, the Chicago Telephone Company and the Central Union Telegraph Company.

The basis for the suit is an invention to facilitate long distance telephoning, for which Henry C. Strong secured a patent in 1885. Joined with him at that time were David A. Strong and Henry P. Caldwell, they have secured eleven-fifteenths of his rights to purchase.

Mr. Strong, who has waited through long years for the credit of inventing a mechanism that has almost revolutionized the business world, is now approaching his eightieth birthday. He is almost as poor now as when in the '50s he borrowed money of his brother to work on ill-constructed mechanisms which were scoffed at by those to whom the inventor explained their intended use.

The patent which is the basis for the suit was issued for a period of seventeen years

and was, and is yet, according to the original complaint, worth \$100,000,000. Subsequently the Atlantic & Western Telephone Company secured the rights of the invention by purchase in 1892, the consideration being \$5,000,000.

#### **COURT IN BASEMENT.**

For the purpose of demonstrating to United States District Judge W. H. Seaman that it has in no wise infringed upon the patents of the Westinghouse Electric Manufacturing Company, the National Electric Manufacturing Company of Milwaukee has set up a complete electrical plant, including several motors and dynamos, switchboard and incandescent and arc lamps in the basement of the federal building.

Soon after Judge Seaman ascended to the bench the court adjourned to the basement to view the exhibits and listen to the arguments in demonstrating the differences in patents, for the purpose of preventing the issuance of a temporary injunction pending litigation. The display was a brilliant one, the motors being primarily connected with a cable of the street railway company.

The Westinghouse Company is endeavoring to prevent the manufacture of a two-faced motor manufactured by the Milwaukee company, claiming an infringement of patents. By the manipulation of the switchboard, sending the currents from one machine to another the Milwaukee company sought to demonstrate a difference in motors and devices in that under its patent it is enabled to change from an alternating to a direct current without a stoppage of the machinery. This it is claimed can not be done with the use of the Westinghouse motor.

One of the interesting experiments, to demonstrate the difference in the alternating and the direct currents, was the setting of a big china bowl full of water within one of the dynamo coils that was laid horizontally and throwing in a handful of nails, the current lifting the nails to the surface of the water and spinning them around, following the direction of the electrical current as it coursed through the dynamo coil.

**WILL SUPERSEDE MAIL.**

Patrick H. Delany, an electrical inventor of South Orange, N. J., experimenting on the wires of the Pennsylvania Railroad Company for the past ten years, has perfected a telegraph system which is destined to supersede the postoffice. It is capable of sending messages at the rate of 3,000 words a minute and a company is to be formed to compete with the Western Union and Postal Telegraph Companies in the sending of bulky matter to the principal cities of the country.

The machine telegraph is designed principally for use on wires running between the most important cities, over which large volumes of business have to be sent each day. These wires are now taxed to their utmost to carry even the limited volume of business possible under the present system. By the Delany system it is claimed that at least forty times the quantity of matter can be transmitted in a given time. It is Mr. Delaney's idea to make his system take the place of the mails for business correspondence. He says the day is near when it will not pay a business man to mail a letter to Chicago at a cost of two cents and wait two or three days for an answer, when for a little more expenditure he can send a letter as far and receive an answer in a few hours.

With this system a stenographer in any business man's office may punch out the letters on a tape on a machine resembling a typewriter, send the message to the telegraphic office, where it is put on its way at a 3,000-word clip and is received on a chemically prepared tape. This may be translated and ready for delivery within an hour of the time it was written, all at a cost far below present telegraph rates. The New York man may get an answer to his communication in as quick time.

From time to time obstacles have arisen which seemed almost insurmountable and have prevented the introduction of the system. The hardest problem has been to counteract the effects of the "static," as the charge is called, which accumulates in a wire during the sending of a message and which interferes with the operation of anything but the present Morse system, which maintains an average of about twelve or

fifteen words a minute. Mr. Delaney puzzled over this problem for many years, but he could not get rid of the "static," and at last he made that "static" do the work for him, cutting it off by the wave of opposite polarity when he got through with it. The solution is very simple, but it has been called the greatest discovery in connection with the telegraph in thirty years.

**JUDGE CROCODILE.**

There was a dispute between a wildcat and a young tiger as to who should smoke a cigar they found one day, and it was decided to leave the question to the crocodile.

"You both want this cigar?" said the crocodile.

"Yes," they replied together.

"I claim it because I have been a very good little fellow," said the tiger.

"And I claim it because I am a bad fellow to trifle with in a matter of this kind," said the wildcat.

"Very well," said the crocodile. "I will try the cigar, and if it is a good one I will give it to the tiger, and if it is a bad one I will give it to the wildcat."

Then he struck a match and lit the cigar, and puffed away right merrily. Gradually the cigar was consumed, while the two animals waited impatiently for the verdict. When the cigar became so short that it nearly burnt the crocodile's mouth, he said:

"My friends, it is impossible for me to tell whether this is a good cigar or a bad cigar, and as there is nothing left of it now your dispute may as well be forgotten. In the meantime, if you find any more cigars let me know, and I will smoke them for you." And with a merry laugh he plunged into the river and swam away.

[Many a litigant, even after obtaining judgment, discovers that the cigar has been smoked, and nothing is left for execution.]

It is stated that the General Electric Company anticipates fully as much business for 1904 as it has enjoyed during 1903. Recent arrangements made with large German interests, it is expected, will prove of importance in this connection.

**ELECTRIC POST INVENTION.**

The electric post invention by which letters and parcels are to be carried at 250 miles an hour is shortly to be put to a practical test. A syndicate has been formed with a capital of £150,000, divided into 60,000 six per cent cumulative preference shares of £1 each, and 90,000 ordinary shares of £1 each. Two-thirds of the amount wanted will be raised in Italy and France, and one-third only in England. The syndicate is formed to take over the patents from Count Taeggi Piscicelli, the inventor, and to develop the system. Among the objects aimed at are the following:

(1) To demonstrate the invention on a practical scale.

If the inventor's claims are established in the forthcoming test it is not too much to say that the postal service will be entirely revolutionized. In effect the new system aims at providing by automatic means for all the requirements to which postal correspondence is subject from the moment it is put in the letter box to the time of its arrival at the offices from which the postman receives it for delivery to its ultimate destination, and at no greater cost than at present. The present method of railway conveyance will be superseded, mail-sorting vans on expresses will no longer be necessary, and the army of collectors and sorters will find their occupation gone.

A continuous dispatch will be possible from town to town and from district to district, and so completely will space be annihilated that a letter posted in London will be in Manchester in less than an hour, and in Glasgow in under two hours. The system, it will be seen, promises in many cases to be a serious rival to the telegraph. In appearance it will resemble nothing so much as a form of electric railways. Wires will be carried from place to place on high poles, and on these lines the boxes which are to carry the letters and the parcels will run. The carriers, which will be made of aluminum, will weigh about 1 1-2 cwt. each. They will be fitted with small motors, and equipped with wheels which will grip the wires as securely as if they were fastened to them. In addition to supporting the wires, the poles can be used as collecting boxes, and by an ingenious arrange-

ment the letters as they drop into the receptacle are marked with the date and the hour, and the stamps are obliterated somewhat in the same way as is done at the post office. At stated intervals the receptacle is automatically drawn up to the height of the wires, where it deposits its contents into the carrier, which sees that every pole does its duty before it returns to the central office.

The working of the invention, however, must be unfolded gradually, and for the moment the chief aim of the promoters is to establish that the system is of practical value for transmitting letters at a speed of 250 miles an hour. The demonstration is to be given in Italy. There are several reasons why it will take place there. Count Piscicelli is an Italian, like the other annihilator of space, Mr. Marconi—who, by the way, has great hopes of the electric post invention—the king of Italy has deeply interested himself in the invention all along, and the Italian government has offered the inventor every facility for putting his system to a practical test. It has been arranged that the demonstrations will take place outside Rome. The original intention was to erect the installation between two large towns—Rome and Naples were mentioned—but the short distance would not have admitted of a fair test of speed. To overcome this difficulty Count Piscicelli devised a scheme by which the test can be applied within a radius of 12 1-2 miles. The installation will be erected in a sort of oblong within which will be two circles. The carriers when set in motion at the center from a building which will represent a post office will be able to run indefinitely by a kind of "looping-the-loop" process. The demonstration if successful will be all the more valuable under this arrangement because all kinds of curves will have to be negotiated.

The railway companies, whose service will be greatly affected by the invention, will be given every facility to see the invention at work. It is claimed by the promoters that the electric post system is not a rival but an adjunct to the railways, because by the system the lines could be relieved of all the light traffic such as mails, and small parcels of every kind could be

carried by the electric post, which could be erected alongside the existing railways. Leading engineers of many countries have also expressed their desire to attend. At the demonstration the inventor will not only explain how the mails and parcels can be handled, but will carry out the work in every detail.

It has been decided that if the demonstration proves the utility of the invention it will be applied to all the railways in Italy, and an installation will be erected between Rome and Naples. The British post office is watching the development of the invention very closely.—*London St. James's Gazette*.

### RADIUM.

Sir William Ramsay's recent lecture before the London Institution on "Radium and the Periodic Law," was perhaps chiefly remarkable for his declaration that the transmutation of elements as a theory was by no means absurd. The lecturer briefly sketched the outline of periodic law, which is beginning to suggest some root identity between the various elements, and then told of some practical results that had followed the discovery of this law. Sir William traced the various steps which led to the discovery of radium. Mendelieff, the great Russian chemist, ranged the elements—hydrogen, oxygen, carbon, nitrogen, sodium, the metals, and the other substances of which all things were composed—in the order of their atomic weight. Thus arranged, he showed that substances which came in certain classes had certain properties in common, as, for example, fluorine, chlorine, iodine and bromine. But there were gaps in this scheme, and Mendelieff predicted that new elements would be discovered to fill the vacant spaces. The fulfillment of that prophesy was one of the greatest scientific achievements of recent years, and each new kind of atom had fallen into and fitted an empty place.

In 1894 Lord Rayleigh and Sir W. Ramsay detected argon in the air. Next year Sir William discovered helium, which had been revealed in the sun by the spectroscope before it was found on earth. Two years later, in 1897, when the British Association met in Canada, Sir William Ramsay ven-

tured on the prophesy that other elements like argon and helium would be discovered. He and a scientific colleague justified the forecast. They searched high and low, and finally by means of liquid air they isolated three new elements in the atmosphere—krypton, neon and xenon—belonging to the same class as helium and argon, and like them inert bodies with no discoverable affinity for others. The professor showed what gases of these substances were like by sending through them an electric current. Their spectra were thrown on the screen, that of xenon, or "the stranger," showing in its entirety the remarkable number of 2,000 distinctive lines. These, it had been said, were inert elements. Their discovery had been followed by the revelation of a class of elements that were remarkably energetic. In 1896 Roentgen discovered the X-rays, and Prof. Ramsay showed a radiograph, the first he believed taken in London by the Roentgen rays. Simultaneously Becquerel, in Paris, discovered that uranium would discharge the electroscope. Madame Curie, following up the investigation, revealed the existence of polonium in pitch-blende, and in the same mineral Monsieur and Madame Curie made the momentous discovery of radium—now universally known as the most energetic of all radioactive bodies. But not the only one; there seemed to be six in all—uranium (found by Becquerel), polonium and radium (Monsieur and Madame Curie), thorium (Schmidt, of Bresleau), tinium, and an unnamed element (by Giesel). As to what became of radium ultimately, Sir William gave it as his opinion that the infinitely small particles that it threw off eventually lost their radioactivity, and then gave the spectrum of helium. It seemed as if this intensely active element at last turned into helium—thus bearing out the theory of transmutation.—*Electrical Engineer, London*.

A radium factory started in Germany has many hundred gram orders on its books, writes United States Consul General Guenther, to the Department of Commerce and Labor. The company receives \$2,000 a gram for the product and although its furnaces are working night and day, it is unable to meet the demand.



**BEATING THE EXPRESSMAN.**

They haggled for ten minutes over the cost of moving. The woman claimed that the job was worth only \$2, including a tip. The expressman insisted upon getting \$2.25. At last the woman won out.

"All right," said the man, "if you won't pay any more you won't." So he piled the trunks, the books and the bookcases into the wagon and drove away.

The woman was jubilant. She told everybody in the house she was leaving about how she had at last got the best of the autocrat, the New York expressman, and when she got to the home of the friend with whom she was going to live boasts of her achievement still trembled on her tongue.

"What do you think?" she began triumphantly.

"Excuse me a minute," said her friend. "Before you go on I want to tell you about that expressman. He got your things here without a scratch. He was so very nice and careful that I gave him a quarter. He asked for it. He said you expected me to give it to him; that you would have given it yourself only you were short of change and couldn't spare it. I hope it was all right. Now, go ahead and tell your story."

"I don't think I have one to tell," said the woman weakly. "You have spoiled the point."—*New York Press*.

**LIVING FOR SELF ALONE.**

Alas! to many union men think that unionism means selfishness. As long as they hold good, steady paying positions "they" are satisfied; their brother who may not be so fortunate must hustle for himself without any help or encouragement from his fellow unionist.

Unionism does not mean "Knockism." Always give your fellow unionist a chance. He may not be speedy in some departments of the trade, but it is no ground to "knock him." Knocking is non-union, unconstitutional and underhanded.

If you can not say a good word for your brother in all departments, surely you can in one or two. He may be skilled and accurate and these qualifications count in his work in the end. You will generally find he is a true union man; one always

wishing to advance the union's cause and interests. He is a liberal minded man not solely wrapped up in self. Such men have brought the standard of wages up to what they are to-day. Steady, reliable, thinking, unselfish men.

Some men placed in authority seem to think the "whole" business rests on their shoulders, so anxious are they to prove to their "employer" their interest in their employers' service, they "forget" their obligation to their fellow workman—he is secondary. There is too much "each man for himself, and the devil take the hindmost." That is the main reason that wages have only increased sixty per cent in 150 years.

Selfishness has kept the wage-earner from being represented in our legislative halls. Selfishness has allowed trusts to live and thrive. Selfishness has kept the label from increasing. Selfishness is undermining even unionism. There must be a more brotherly "action" in unionism.

The cause of one should be the cause of all. Why is it not so?

In unity there is strength.

Divided we weaken.—*The Tobacco Worker*.

A despatch from Paris says: "As a result of recent negotiations it is announced that the Mediterranean Thomson-Houston Company and the German Societe Generale d'Electricite have been amalgamated. The new company will have a capital of \$1,200,000. There has been no conclusion of the negotiations for the amalgamation of the French Thomson-Houston Company into the combination, but no hitch has occurred, so far as is known."

The wealthy Zemindars and Maharajahs of India are using electricity very largely for the lighting of their palaces. The Maharajahs of Dharbanga has just placed an order with a Calcutta firm for the installation of an electric lighting plant for his new palace at Raynagar, which will cost over \$100,000.

Electricity in Cincinnati, O., during the next ten years will be sold to private consumers, and for use in public buildings, at not to exceed 12 1-2 cents per kilowatt.

## Reports From Grand Officers

### Grand President.

I left the General Office on the evening of the second for Hartford, Conn., where I had been called by the executive board of Local No. 186.

I felt sure that something favorable to our cause had occurred there, but was disappointed, as I found the situation unchanged upon my arrival there on the third.

I talked matters over with the strike committee, and found that D. V. P. Mallory and the committee had everything well in hand and the members of Local No. 186 standing firm as ever.

I left Hartford on the morning of the fourth for New Britain, and called upon Grand Treasurer Sheehan on business matters.

From New Britain I went to Waterbury to see Mr. Morse, of the New England Engineering Company. When I arrived there I found that he had gone out of the city, and would not return until late that evening.

As I had an engagement in Philadelphia that evening I could not wait for him. I left Waterbury at 2 p. m., arrived in New York at 8 p. m, three hours later, so could not arrive in Philadelphia in time to keep my engagement.

I attended the meeting of Local No. 98 on the fifth, and on the sixth I attended to some business with Business Agent Meade for Local No. 98.

In the evening I left for the General Office.

On the seventh I attended to my mail and returned to Philadelphia that evening to meet the executive board of Local No. 98. We desired to make an effort to have section two of their agreement with the independent contractors eliminated. This section forbids the members of Local No. 98 (individually or collectively) from affiliating with any Central Labor Council during the life of the agreement. We deemed this action necessary, inasmuch as it is impossible for us to get any assistance from the other trades against the big seven while that clause keeps the local out of the councils of Philadelphia.

The eighth and ninth I spent with Brother Meade on the above business.

I attended the meeting of the District Council of that city on the evening of the tenth.

I left Philadelphia for St. Louis on the twelfth, where I had been called by Locals No. 2 and 309, of East St. Louis. I arrived there on the fourteenth.

I visited the fair grounds with the business agents of Locals Nos. 1 and 2.

On the fifteenth I attended the meeting of Local No. 181—trimmers. I advised that local to consolidate with Local No. 2 as I found their interests could be better cared for in that manner. A special meeting of the local was called for the twenty-second to act on the suggestion.

On the sixteenth I attended a meeting of Local No. 2, which was well attended, and requested that a committee of five be appointed, with full power to act, to meet a like committee of Local No. 1, to settle the work in dispute on the fair grounds.

At 3 p. m. I attended a special meeting of the executive board of Local No. 1.

On the seventeenth I attended the meeting of Local No. 367 (cranemen), and found that local in very bad condition. I advised the brothers that attended to call a special meeting for the twenty-fourth, and invite every craneman possible to attend.

Left Cranemen's meeting to attend meeting of No. 1's executive board.

On the eighteenth I attended the meeting of Local No. 59, and requested that an open meeting of the local be called for the twenty-fifth, which was done.

Grand Vice-President Witters joined me on the nineteenth upon my request. In the evening we attended the meetings of Locals Nos. 199 (cable splicers,) and No. 1. I requested that No. 1 appoint a committee, with fully power to act, to meet the committee of No. 2 to settle the jurisdiction of the work in question.

Grand Vice-President Witters, Business Agent Elmore, of Local No. 2; Business Agent Porter, of Local No. 1, and I inspected the disputed work on the morning of the twentieth.

On that evening the committees met, as follows: Brothers Gilsdorf, Kelly, Porter, Armond and Dooley representing Local No. 1; Brothers Elmore, O'Connell, Snyder, Westphal and Meyer representing No. 2.

After calling the meeting to order I suggested that Grand Vice-President Witters act as secretary of the meeting, which was agreeable to all.

After being in session for about six hours the following agreement was reached,

St. Louis, Mo., January 22, 1904.

We, the following committees of Locals No. 1 and No. 2 agree to following jurisdiction lines on all work on the World's Fair grounds:

1st. That Local No. 2 shall set transformers and connect primary wires to same and secondary wires to buss bars, mains or feeders.

2nd. All fire alarm maintenance conceded to Local No. 2.

3rd. All arc lamp maintenance and operation belongs to No. 2, including arc switch board.

4th. All switch board maintenance and operation except arc switch board belongs to No. 1.

5th. All incandescent maintenance belongs to No. 1.

6th. High tension maintenance (primaries) belongs to No. 2.

7th. Maintenance men in transformer houses shall belong to No. 1 and shall put in primary fuses in transformer houses.

8th. Setting all switch boards and hanging all constant current transformers shall belong to No. 1.

(Signed.)

COMMITTEES.

Each committee is to be commended for their fairness and tact.

The twenty-first found me and the D. V. P. in East St. Louis where we met a committee from Local No. 309; from there we went to Belleville, Ill., met Bro. Christian, and went over the situation with him.

In the evening we met some inside men that are desirous of organizing in E. St. Louis. I explained to them that No. 1 claimed jurisdiction over E. St. Louis and it would be necessary for them to get the consent of No. 1 before we could issue them a charter. They promised to send a com-

mittee to see No. 1 and try and get the necessary consent.

We then attended meeting of Local No. 309 and heard the grievance they had against No. 50.

We advised them to appoint a committee to go to Belleville on the 23rd to request of Local No. 50 that they allow local No. 309 some of the territory covered by them, as it was hard work for No. 309 to exist as their territory was too small.

This was done, I am glad to say, and on the twenty-third we all met in Belleville, had Local No. 50 appoint a committee and in about one hour the long standing fight of jurisdiction was settled between both locals.

On the 22nd we attended the special meeting of Local No. 189. After the meeting a grand lunch and refreshments were served. Every brother that was lucky enough to attend enjoyed himself.

A vote was taken as to their consolidating with No. 2, with the result that they join forces on February 1st, 1904.

On the 23rd, we attended a special meeting of Local No. 367 to which all cranemen were admitted.

We had talks on the movement in general by Bros. Witters, Kelly, Coughlin, Meyers, and yours truly.

The discovery was made that another international organization has started to admit to its membership electrical workers. I am of the opinion that it is being done without the knowledge of the national organization, and can be adjusted satisfactorily.

I think that Local No. 367 got started on the right path and soon will be in good shape. On the 25th we attended an open meeting of Local No. 59 (inside telephone wiremen) which was not as well attended as the officers wished, still the brothers that stayed away had a good excuse,—no cars running, owing to the storm.

On the 26th we attended Locals No. 1 meeting.

Brother Porter, Elmore and I met Mr. Elliott, chief engineer of the world's fair, and explained the jurisdiction of work as agreed upon between Locals No. 1 and 2. On the 27 I went to Alton, Ill., and attended the meeting of Local No. 128 on the evening of the 28th, they have been fighting the Bell

Telephone in that city since last May. You will know how the the public supported them in the struggle when I tell you the company called for a meeting through the trades council. This meeting was called for the 30th, and I was requested to be present.

The committees of Locals No. 1 and 2 met once more in regard to a job known as the terminal. This time they failed to mutually agree, and the points in dispute were left for me to decide. My decision will be in my next report.

I arrived in Alton on the 30th, in time for the meeting between the committees representing Local 128 and the Central Labor Union of Alton.

Mr. C. H. Rottger, of Springfield, Ill., represented the company. I found after the conference had lasted about one hour that Mr. Rottger had the wrong idea as to the workings and the principles of our Brotherhood. After I explained different matters to him he decided he would give his answer inside of a week. I look for a favorable answer. I spoke to Mr. Rottger about the trouble in Springfield, and he promised to take up that just as soon as the Alton affair was settled. I left Alton for Cincinnati on the 31st, and have not seen any of the brothers here as yet. In closing I wish to thank the brothers in St. Louis for their kindness to me while in that city. One of the hardest jobs I had was keeping my dates from becoming mixed.

The trouble I found in St. Louis lay in the fact that our locals are too far apart. To listen to some brothers, you would hardly think they belonged to the same international organization. I urged the locals to start a district council, where they can take their little troubles and settle them among themselves, and unite their forces and use them against the trades that are trying to steal our work from us, instead of fighting among themselves. I believe my trip has been a benefit to our Brotherhood in St. Louis. D. V. P. Witters remains there to try and organize the shop men.

Again thanking the brothers of St. Louis, East St. Louis, Belleville and Alton for their kindness to me while in their respective city, I am, fraternally,

F. J. McNULTY.

P. S.--By the time this report goes to press the trouble in this city will be settled.

F. J. McN.

Cincinnati, Ohio, Jan. 31, 1904.

### First Vice-President.

I attended a special meeting of Local No. 127, of New Rochelle. Since being organized No. 127 has had a great deal to contend with in the form of sympathetic strikes, and, I may add, have stood it as well as could be expected.

The B. T. C. in New Rochelle is in a very bad way, owing to an all summer's strike and lockout of last year, but the effort they are making to again build up their future looks bright.

On January 5 I was at No. 20's meeting, and had the honor extended to me to install the newly elected officers. It was a very enthusiastic meeting, and I believe each Brother there intends to do all in his power to build up the Brotherhood in his locality.

On January 7 I went to Middletown, that being the meeting night of Local No. 101, but enough members not being present it was not held. It seems as though a great many of our members fail to realize that their presence is necessary to encourage the officers who they elect to do the work they (the members) are too tired to perform. I hope the time is not far distant when union men will work for their own good.

I arrived in Binghamton January 8, and attended Local No. 325's meeting. I found the local composed of hustling members. They were pleased to see one of the Executive Board in their meeting.

Local 325 and Local 139, of Elmira, had some little differences, but I attended a meeting of both locals and talked it over with them. I believe in the future nothing but harmony will prevail between the two.

On January 9 I had the honor, as well as the pleasure, of installing the new officers of Local 92, of Hornellsville. I found the condition there very gratifying, all but three or four of the electrical workers being members of Local 92.

On January 11 I went to Jamestown, but on arriving I found Local 106 had changed their meeting to twice a month instead of weekly. I found some of the members

while there. They informed me conditions were good, about all the electrical workers in and about Jamestown belonging to the local.

I have arranged for the locals that are on the same railroad line to hold open meetings three or four days apart, giving me that much time to get the non-union men together.

I find the first district to be only half organized, but believe by the course laid out very effective organizing can be done. I am receiving numerous requests from locals to come in their territory to see what can be done in building them up, and as fast as I can I will comply with requests, as the locals who are in need of assistance are the ones I mean to visit first. Had it not been for the lockout of Local 41, of Buffalo, by the Contractors Association, which has kept me here since I arrived, I could have accomplished much more than I have.

On January 12 I arrived in Buffalo, and found the members of Local 41 had been locked out by the Contractors Association since January 4, each of the members receiving a letter from his employer, which read: "Mr. ——. Dear sir: We beg to inform you on and after January 4, 1904, we propose to run and maintain an open shop, employing whom we choose for the best interest of our business. If you desire to work for this company you may continue to do so under such terms, but if not we must be informed of such fact by January 4, 12 o'clock. All of our employees remaining at work with us will receive the same fair treatment in the future as they have in the past. Yours, very truly." Signed by the employer. After an ultimatum of that description, it is needless to say the only action for No. 41 to take would be to refuse, which they did. We arranged for a meeting with the contractors—January 19. When we met the contractors stated that they did not have time to consider whether they would do business with Local 41 or not, but agreed to a meeting January 26, when they would present an agreement if, at that time, they so desired one for our consideration. They gave no excuse for breaking the agreement they had signed, which did not expire until May 1, 1904. On January 26 we again met committee. They handed our committee-

mittee an individual agreement, which read:

#### AGREEMENT.

I, ———, having this day received employment from ———, of the city of Buffalo, N. Y., in consideration of such employment, agree to the following conditions, viz:

First. A day's labor shall consist of eight (8) hours.

Second. The wages to be paid shall be at the rate of ——— per hour.

Third. I shall work peaceably and harmoniously with my fellow employees, whether union men or not.

Fourth. I will obey such rules and regulations as ——— may promulgate, whether verbally or in writing, for the management of their shop or business.

Fifth. All of which I subscribe to and promise in good faith to perform.

Witness my hand at the city of Buffalo, N. Y., on this ——— day of ———, in the year of our Lord one thousand nine hundred and four. ———

After handing the above to the committee of Local 41, they said they did not want an answer from the union, but the members wishing work could sign the same when applying for employment as individuals, as under no conditions would they deal with the union, so the fight is still on. The local is holding a meeting in the forenoon and one in the afternoon. The B. T. C. of Buffalo is giving them support wherever they can. The work is pretty well tied up. The members are conducting the fight on sensible lines, and intend to stick to the bitter end, only one of their number having gone the way of the bad. One of the unfair contractors has a job in Warren, Pa., one in Washington, D. C., and one in Rochester. I hope the locals in these localities can see their way clear to help Local 41 against said firms, as I know moral assistance helps more than financial assistance.

While in Buffalo I attended a meeting of Local 45, the outside local. Also local 58, of Niagara Falls. Both are in need of an organizer, as there are a large number of men outside of the union. I am to give them my attention as soon as time will permit.

FRANCIS J. SWEEK.

### Second Vice-President.

I herewith submit the following report for the month of January:

As the struggle was still on in Hartford and but very little there for me to do I appealed to the Grand President for permission to leave that city and take up other important work in my district. The privilege was granted under the proviso that I should keep within hailing distance of Hartford in case that my services were required there.

On January 1 I attended a meeting of the brick masons' union and disposed of fifty tickets for Local No. 186; also attended meeting of the steamfitters for the same purpose.

Saturday, January 2, called at the carpenters' headquarters and discussed matters in relation to our trouble and asked that they assist No. 186, by purchasing some tickets for their hall and they agreed to do so.

I started for the city of Lynn that evening but was caught in a snow storm, being stalled on the road all night, not getting to my destination until next day.

Monday started to work, but had to give up at 5.40 p. m. and, after obtaining the services of a physician, I found I had a severe case of la grippe and was obliged to cancel the dates I had arranged for that week.

On the following Monday I returned to Hartford, finding conditions the same as when I left there early in month. Attended their regular meeting on Tuesday, and on Wednesday went to Bridgeport and attended a meeting of No. 146. With a little more effort, on the part of the members, Bridgeport will be in the foremost ranks of the Connecticut locals.

Thursday I went to Stamford. The local there is rather small in numbers and the only benefits that might be derived is a better attendance of the meetings.

Friday I went to Waterbury, Local No. 11. Attended their meeting, and while I found some good, loyal workers I discovered a little dissension, and from the advice given am in hopes, with the aid of the members, to bring about a good and harmonious feeling.

Saturday went to New Haven and attended the meeting of Local No. 90, and while the attendance was small I found a number of good, conscientious workers.

I returned to Boston and interviewed some of the shopmen for the purpose of getting a new local in that city. I went to Worcester in the evening and attended the meeting of Local No. 96, returning to Boston the next day. I attended the meetings of Locals No. 104 and No. 386. They promised to furnish information in both these bodies that would be beneficial to help to start locals in two other cities, but up to date have not received any data.

On Wednesday I went to Lynn and met President Carlin, of the allied metal mechanics, to begin operations there. Attended meeting of Local No. 103 in the evening in Boston.

Thursday I went to North Adams. There was a little difficulty there that was settled with a very good feeling on Friday, and on Saturday I got after some linemen and factory wiremen and got very strong assurances that they would join the Brotherhood.

I returned to Lynn and interviewed some of the employees there, and went to Local No. 223, in Brockton, in the evening and urged them to get the linemen to join their ranks if possible.

I returned to Lynn next day, and also done a little work in Boston during noon hour, following the same routine the next day, and attended the meeting of the allied metal mechanics.

On Thursday I went to Hartford and returned to Lynn Saturday afternoon.

I have covered twelve locals in my district this month, and find business very dull in most cases, which is a natural course of events annually at this season. I have now taken the best field I could to organize in and have got two locals under way, one of which I am in hopes will run up into good-sized numbers after we get started. I intend to cover every local whenever the opportunity presents itself. I am only one person and can do no more than any other individual. I ask the hearty co-operation of all the members who can assist to help me in this district—greater results can be accomplished by all hands pulling together and advancing our cause.

I have found that there is a lack of interest in attending meetings in a good many locals—more progress is made and better results accomplished by strict attention to duty. I sincerely trust the advice I have



given in the various locals will be adhered to and that the lodge rooms will have a larger patronage in the future.

I am pleased to get any information that will help along the cause. A line to 987 Washington street, Boston, Mass., will always reach me.

I have mailed ball tickets to different locals and got no returns and Local No. 186 would like very much to hear from them.

The situation at Hartford remains the same—the boys are determined to hang together and win.

EVERETT T. MALLORY.

Hartford, Conn., Feby 1, 1904.

### Third Vice-President.

Went from Pittsburg to Indianapolis, where scale of inside men of No. 10 had expired and contractors and committee had not arrived at any agreement; attended meeting of No. 10 on January 4 and on January 5 went with the committee to meet the committee of the contractors' association. After going over the scale the local had presented we took up the scale the contractors had presented. We could not agree on either, so, when about to adjourn, at 12.30 a. m., the committee asked the contractors if they would accept last year's agreement for this year, and after a short debate same was accepted and signed by the contractors and the committee for No. 10.

This agreement is not any of the best, but under the present conditions, with no work in sight and bosses wanting to try the open shop, think the committee did a very wise act in accepting the same.

I then went to Cincinnati, Ohio, where Local No. 212 had declared a strike on Tuesday, January 5. Arrived in Cincinnati on evening of January 6, and was met at the depot by quite a delegation, who explained the trouble to me. The next morning had a meeting of the local, after which I had a meeting with the strike committee; going over everything thoroughly we decided to visit each individual contractor, which we did, and after a meeting of the local on January 8 the committee and myself visited one of the largest shops, and after a long debate arrived at this agreement: \$3 until March 1, \$3.25 March 1 to December 31, and \$3.50 from January 1, 1905, to Decem-

ber 31, 1905, which was signed up by the firm and the committee.

After leaving this shop we went to the contractors' meeting, as they were in session, and sent in our names, but were told they would not admit any one but me, so I went before their body and told them of my mission to their city—to try to bring about a satisfactory settlement; also telling them what we had done with Mr. Devere, and after about an hour or more talking over the situation I retired, but before doing so was handed a card by Mr. Schulman and told to call at his office the next day. After attending a meeting of the local the next morning I called on Mr. Schulman at his office to find out what action the contractors' association had taken, and was told that the contractors had decided not to accept the scale we had adopted, but would grant last year's wages, which was \$3. I told them we could not accept that, as the trouble had gone too far, and also that it did not look good when one of the largest firms in the city was willing to accept the same, putting 22 men to work.

I then went with the committee to visit different contractors to have a talk with them on how they stood and succeeded in getting two more shops to put their men back; I wish also to say that one firm, employing nine men, stopped only a few hours the first day.

The next day, after the meeting, I went with the business agent to a job in Noorwood where non-union men were employed. The job had been visited day before by the business agent of the building trades council and business agent of No. 212, who had succeeded in getting six men to quit. Arriving at the job we met the contractor, who told us he had five more men working, but could not get at them, as all the doors were fastened, with no other trades on the job. The contractor told us he had visited the president of the bank the day before and he had ordered all the other trades to keep off the job until the electrical work was finished, so we could not do anything there.

This contractor told us he was willing to pay scale and put men back to work, but could not, as everything was left to Mr. Schulman to settle, and whatever he did was satisfactory to him.

We then visited a couple of other jobs in this district, but found no electricians working, but work was standing waiting for electrical work to be done.

The local holds meeting every morning at 10 a. m. to hear reports of committees and have roll call. Every member not answering to his name unless reported sick, is assessed 50 cents, which is the amount every member working is required to pay into the local to help support the brothers still out.

I had the pleasure in attending a meeting of the Employers Association to hear Mr. Parry, Mr. Jot, and several others tell what they intended to do to organized labor, but will say labor organizations will be doing business at their old stand when Mr. Parry and his friends are all under six feet of earth. I also had great pleasure in attending a banquet given by the Central Trades and Labor Council of Kent and Campbell counties, Kentucky, and there was far more pleasure in being with men you know were all right than a body of men bonded together whose object is to crush out labor organizations. I had a very pleasant time and was also given the floor. I told them of the strike of No. 212, and asked for any assistance they could possibly give. I met president of body who told me to have local send three delegates to their next meeting with credentials and they would be given a seat, and could ask for assistance, as they had a rule on their books not to give any assistance, either morally or financially, unless organizations asking same had delegates to their body.

I took this up at the meeting of 212, and they elected delegates who were seated last Friday week, and since then have received assistance on two jobs in their jurisdiction. I also had to take up the granting of a charter in this district, as one of the largest contractors had a petition out trying to form an organization of non-union men. As this contractor has two hardware stores in this district, and depends on union men to buy their tools from him, he has been notified by Central Trades Assembly to put union wiremen to work or his stores would be put on the unfair list, and will say no charter will be granted at this time.

The members of No. 212 are standing firm and have been out of work four weeks, with no money in the treasury to pay to mem-

bers except what comes in from the brothers working, and up to the present time have had one deserter, who does not amount to much, for just as soon as he receives any money he will get full and do us more good than harm.

The committee has done good and faithful work, attending to everything they were notified about; also investigating other matters pertaining to the strike.

Mr. Wilks, of Burnham & Co., of Chicago, was here a few days ago trying to have work proceed on a new bank building they have in this city. He offered to pay the difference in the scale on this one job, but we could not accept the same, as Mr. Schulman has this work, and the contractors' association having left everything to him it would only be helping to defeat ourselves.

I have held this letter back until the last minute, as it looked very much like a settlement, and since writing the above Brother Bloomfield, business agent of No. 134, of Chicago, has arrived here to try and bring Mr. Schulman into line, as he has a very large job in Chicago.

The committee, with Mr. Bloomfield and myself, visited Mr. Schulman and were to go back at 4 p. m., and just before returning to the meeting Grand President McNulty arrived in the city and accompanied committee to the meeting.

Think everything will be off in a few days, have settled on working rule and agreement, except the wage scale, and this is to be arbitrated, with a decision not later than March 14; men return to work immediately upon signing agreement, which will be ready this afternoon.

With best wishes to all members of the I. B. E. W., I remain,

E. P. ALLMAN.

Cincinnati, Ohio, Feb. 2, 1903.

#### Fourth Vice-President.

As I closed my December report in New Orleans, La., I will state that on January 2 the men returned to work, and of course there was some dissatisfaction among the men, as there always is, but I think the members of No. 130 will get down to business and work in the future as in the past, as there is a lot of good material in No. 130. I stayed there until the eighth of January

to see the outcome, and left for Mobile, Ala., where I found a number one local and all the workers in the city carrying cards but one, and he promised me to return to the fold. They called a special meeting on Sunday, the ninth, with a good attendance, and on Monday night they gave a banquet, which would do honor to the President of the United States. We had the officers of the Central Trades Council, Brother J. T. Faust, of the Tobacco Workers International Union, and the superintendents of several of the companies, and I must say it was a grand success, and I think it has done a great deal of good, for it brings the employer and employees closer together and more able to understand one another, for when capital and labor will look one another square in the face, and tell the absolute truth they will settle their differences a great deal better, not each one standing with a chip on his shoulder waiting for the other to knock it off. The Trades Council officers each gave a very nice talk, and Brother Faust spoke on liberty, and your humble servant gave them some advice.

On the twelfth I left for Pensacola, Fla., where I found the boys had just organized Local No. 452, with everybody carrying cards; and the manager of the Southern Bell Telephone Company had presented the city foreman with a notice to work ten hours per day, after they had worked two years at nine hours per day. We held a special meeting, and I advise the boys what to do and I called on the manager and stated the agreement that was made between our Grand President McNulty, and General Manager Gentry in Atlanta on the fifth of December, 1903, and thought things would be O. K.

From there I went to Tallahassee, Fla., and found only one worker there, and he is going to send in his application to Pensacola,

From there I went to Jacksonville, Fla., and on the nineteenth we held a special meeting, with not very good attendance. I had the case of Brother Vandergif, which was referred to me by Brother McNulty. After hearing the evidence on both sides I rendered a decision, and the local took a vote and sustained my decision by a four-fifths majority.

I left there for Ocala, Fla., on the twentieth, and found only one worker there.

On the twenty-first went to Tampa, Fla., and found a fine local there. They gave a smoker on the twenty-third, but that day I received a telegram stating the men were all locked out at Pensacola, Fla., so I went to the meeting and talked to the boys until eight-twenty and left on the eight-thirty train, as I thought it my duty to go as soon as possible to Pensacola, as the local was young. When I arrived, on the twenty-fifth, I found all men out and Mr. H. O. Reiley, representing the company, from Atlanta, Ga., and after I convinced him that the agreement entered into between Grand President McNulty and the company covered all departments, he agreed to live up to the contract to the letter, and reinstated all men at nine hours per day. I found in him a good man to deal with, and I think we will find the Southern Bell good people to deal with if we go at it in the right way. I stayed there until the twenty-ninth to see if everything ran smooth, and then went to Montgomery, Ala., to organize a local, and found, upon arrival, they had beat me to it a few days. They called a special meeting on the thirtieth, which was well attended. I gave them a good talk, and think they will have a local to be proud of here before long, and the thirty-first finds me in Birmingham, Ala., all trouble in my district settled as far as I know. I was glad Owensboro, Ky., settled their trouble.

I would like to state I want to visit all locals as soon as I can, but do not get impatient, but follow your constitution on all matters.

DALE SMITH.

Birmingham, Ala., January 31, 1904.

#### Fifth Vice-President.

New Year's Day found me yet in Chicago. With the locals concerned I had three conferences with Chicago City Railroad, but could not reach any understanding with them. I called a meeting of the executive boards of the hostile locals and am glad to say that the differences between them were wiped out and all, with the exception of one local, agreed to pull together.

There is a small demand for linemen around Chicago. Good men are wanted, but a paid up card is necessary. Inside men are more than plentiful there, and I would advise wiremen to stay away from there, as

No. 134 has all she can do at present to look after her own idle men.

On the 7th I was called home, owing to serious sickness in my family, and while there received the large correspondence that had accumulated.

I also tried to find out through the secretaries the condition of the various locals—and right here I want to comment on the negligence of a large number of secretaries in answering their correspondence.

After remaining at home five days I was called by Grand President McNulty to St. Louis, where we have been actively engaged ever since. The work on the world's fairs grounds was settled satisfactorily between Nos. 1 and 2, and also a jurisdiction fight between Nos. 50 and 309.

I will endeavor to organize one of the large factories here, and have the movement on foot at this time. I shall also try to establish a district council here.

Conditions are fairly good around here. The wages especially are better than the ordinary. At the present time about all the men are working around here that can be put to work, but there are quite a number lying idle. The prospects of plenty of work in the spring for all branches of the trade are very bright in this district. In my next report I will try to be able to quote some of the biggest jobs. But, bear in mind that the best of these jobs require a paid up card.

The necessity of protecting fraternal fellowship is becoming more apparent every day, especially in our district, as we, practically without any trouble, could render great assistance to our sister locals in other districts who are in trouble.

The cable splicers won their little difficulty with the Kinlock Telephone Company and are to make demands on the Bell February 1. Local No. 2 will also be in this, as they are after the cable work at the fair, which is now being done by laborers.

No. 1 is at present fighting the elevator constructors.

There is a general movement on foot here for the locals to get closer together. At the last meeting No. 1 took in the helpers, and in February No. 2 takes in No. 189. A new district council is to be formed here also,

which I know will aid in maintaining harmony, if conducted rightly.

F. L. WITTERS.

St. Louis, Mo., Jan. 31, 1904.

### Sixth Vice-President.

On account of some personal business that I was compelled to look after I was unable to start on my official duties on December 1 as instructed by the Grand President, so on his recommendation I did not start until January 1.

I left Dallas on January 3 and went to Gainesville, Tex., with the intention of organizing a local there. I found quite a number of men working there for the Independent Tel. Company, most all of whom were card men. But I learned that after a month or so there would be only two or three men left, so as these men held cards I did not think it was worth while to put a charter there.

I then went to Ardmore, O. T., to visit Local No. 406. I called a special meeting, but only a few of the boys showed up, as it was late when I arrived there and some of the boys had to work and others had made arrangements to take their girls to the show. From talking to the boys I learned that conditions there were good and every man that worked at the business carried a card.

I then went to Guthrie, O. T.; attended Local No. 364's regular meeting and found they were having trouble with the Independent Tel. Company. After going over the grievance with them thoroughly we for that the central labor council had been carrying on the fight. So the local to go before the central body and ask for a committee to be appointed to work in conjunction with us to see if we could not bring about a settlement by some means with the telephone company. But this the central body refused to do, saying that they were ready to do business when the telephone company came to them. So seeing there was nothing to be done under the circumstances I then went to Oklahomo City, and attended a special meeting of Local No. 155; found they were very much worked up over the Guthrie trouble, as the same company in Oklahomo City wanted to send some of Local No. 155's men to Guthrie; so

No. 155 wanted some effort made to settle the trouble. I promised them that I would take the matter up with the Grand President, which I did, and wrote him accordingly.

I then went to Shawnee, O. T. and found quite a bunch of men there. Some of them seemed a little afraid at first, but after talking to them for a while most of them came in on the charter.

I then went back to Oklahomo City and found that Local No. 155 had called a special meeting for that evening, as they had a little trouble on one of the brewing company's buildings. The contract called for union labor throughout and the shop that was doing the electrical work didn't have a union man, and he could not do the work until he got one. The meeting was called to see if they could not get this shop to sign up and work nothing but union men. A contract was drawn up and presented by a brother of No. 155 and myself. The contractor did not oppose the union nor the agreement, only that he would not sign an agreement with a mixed local, so I made him the proposition that if he would give me the assurance, that his men would go into an inside wiremen's local and that he would work nothing but union men I would try to get an inside charter, then he agreed to all this. And I got busy and it was not long until I had most all the men that were doing inside work there.

In the meantime I had got a letter from Brother McNulty's stenographer, saying that a letter in regard to the Guthrie trouble had been received, but that the Grand President was out of the city and was likely to be for two weeks.

I then went to El Reno, O. T.; worked hard among the boys, but with very poor success. The telephone men wouldn't talk to you about a union at all. I made arrangements for a meeting that night, but only one man showed up, and he was the only card man in the town.

I then went to Enid, O. T., and after a thorough investigation found there were not enough men there to support a local.

I then went to Chickshe, I. T., met a few of the boys and arranged for a meeting that night, and must say they showed the best spirit of any little bunch I every met. It

commenced raining and blowing in the afternoon and kept it up all night, but that didn't stop them at all, they were right there and and I wasn't long in getting a local.

I then came to Dallas. Arrived in time to attend the regular meeting of Local No. 69. They had a good attendance and are doing well.

On the following Monday night I attended a regular meeting of Local No. 188, at their new hall, which they have just completed furnishing. The next night I attended a smoker given by Local No. 188. They had a large crowd—members from No. 156 of Fort Worth, No. 69 of Dallas and No. 188's own members. Every one seemed to enjoy himself.

Local No. 188 has been up against the builders' exchange good and strong in the past twelve months, but they are gradually coming up again. If they will keep pushing like they have started off I think it is only a matter of a short time until they will be in as good shape as they were a year ago.

I attended a regular meeting of Local No. 69 last night. They had a good attendance, several applications read, and one man initiated.

As I have been suffering the last few days with a very sore hand I thought I had better see what I could do here, at home, until it got better. I expect to be on the road again in a day or so.

J. P. CONNOR.

Dallas, Tex., Jan. 29, 1904.

### Seventh Vice-President.

Since my last report I have been in San Francisco all the time, with the exception of one day spent at Port Richmond, where I had been requested to go to organize a local. On looking the field over I came to the conclusion that it would be poor policy to place a charter where there were only seven journeymen in the town, and, as Local No. 289, of Oakland, had jurisdiction over the county, I advised that they join said local, with the understanding that they could become a sublocal to the same.

I went to Sacramento on the 15th and attended a meeting of Local No. 36 that evening. Visited the telephone office on the 16th and conferred with the manager in re-

gard to two of the boys who were still out; returned to San Francisco that night and took up the matter with Superintendent Corcoran on Monday, the 18th, who promised to adjust the same.

When I wrote my last report I said that I felt that everything would be O. K. by the time the Worker reached this part of the country, but am sorry to say such is not the case. Instead of men being put to work they are being laid off in every town I hear from, but notwithstanding that conditions are so poor throughout the country we have been able to get our new schedule signed up in San Francisco, Oakland, and Sacramento with the electric light companies, which speaks well for the manner in which we are organized, and in one case, that of the San Francisco Gas and Electric Light Company, the manager requested that I, as the representative of the Brotherhood, should, in conjunction with the representatives of the local, sign the agreement, which was complied with.

When Brother McNulty and I were in Seattle, Wash., we sent to Tacoma for Brother Guy Milford to come to Seattle to confer with District Manager Corcoran in regard to conditions under which the strike was settled, as it was agreed at that conference that any difference which might arise would be taken to Mr. Corcoran to give him a chance to adjust the same, failing in which it would be sent to me. Not being able to get Brother Milford or any other member of Local No. 76 to go to Mr. Corcoran, and as the local had voted to request me to go on the ground, I did not feel that I would be justified in traveling so far and expending so much money, when I would have to come back to San Francisco to settle the difference. I delegated Brother John S. Wilson, of Local No. 77, of Seattle, and Brother Blair, of Local No. 191, of Everett, to represent me with Mr. Corcoran, and up to this date have not heard from either of them.

I have voted against giving \$1,000 to Local 186, of Hartford, Conn., it having been referred to the Executive Board on two occasions by Grand Vice-President Mallory, and on each occasion I voted, "no." I just received a letter from Grand President McNulty, in which he recommends that that

sum be granted to Local 186, claiming that the contractors were organized throughout the State of Connecticut, and for that reason it should be granted. My advice from the General Office, previous to this communication, has been that the Constitution did not provide for strike benefits, and as Local 113, of Colorado Springs, has been turned down on that account, and I not seeing any good reason why Hartford should receive benefits and Colorado Springs should not, and being of the opinion that the Constitution was made for every local and every member of the I. B. E. W., I am voting in the negative for the third time. I will also call attention to the fact that the Citizens' Alliances are as powerful in the State of Colorado as they are in any State in the Union, as they are backed by Governor Peabody and the United States Circuit Court.

M. J. SULLIVAN.

San Francisco, Cal., Jan. 25, 1904

#### Grand Treasurer.

During the time of the convention, recently held at Salt Lake City, the secretary of Local No. 186, of Hartford, Conn., by instruction of the local, sent me a letter to be taken up at the convention. The letter did not reach me until some time after the convention, owing to the fact that I had left Salt Lake and returned east before the letter reached there. Upon receipt of the letter, after its return, I immediately took up the matter with No. 186, which consisted of negotiations pending the signing of a new agreement by the Hartford contractors on November 1, which the local desired them to do, and one which was changed somewhat in form to the previous agreement. The contractors having formed an association previous to the local presenting the agreement, it was necessary for them to call a meeting to take action on the agreement. The action taken was unfavorable; they, however, were willing to sign an agreement changed to suit themselves. This they presented to the local for their consideration. It could not be considered, inasmuch that it would deprive the men of all the rights for which they were organized. The men voted to stand by the agreement which they presented, even to the end that they would have to quit work—which, eventually, they

had to do, as the committee could not come to a satisfactory agreement with the contractors, and on notice of the referendum favorable to the acceptance of the constitution, as amended at the Salt Lake convention, Second Vice-President Mallory was sent to Hartford to handle the affair, and our Grand President, F. J. McNelty, has also been there. I expect their report on further proceedings will be issued in the Worker.

I make the above statement owing to the fact that there was some expense occasioned and the fact, also, that the local had no one else to call on pending the referendum vote. I think I have made the matter plain to headquarters of the expense incurred, and I am also informed that under the circumstances I could hardly refuse to do as I did.

I also attended to some other matters in the State, for which I was called on. Since the referendum my time to the organization has been voluntary. The constitution defines the policy for me to pursue for the next two years, and, like all good members I propose to follow it.

F. J. SHEEHAN,  
Grand Treasurer.

New Britain, Conn., Jan. 13, 1904.

#### AFFAIRS IN PITTSBURG.

Since our Electrical Journal is no longer a "medium" through which locals can publish their troubles and grievances, by request of No. 5 I wish to insert a few lines to let the Brotherhood know what we have been up against for the past three months. The "lockout" of the building trades affiliated with the B. T. C., comprising twenty-six crafts, has come to an end, after a sickening siege of three long months. The trouble came about when the plumbers went out on strike for \$4.50 per day, which the master plumbers ignored altogether, and by their persistence in working non-union men brought about sympathetic strikes. The Builders Exchange League, comprising all general and subcontractors, architects and capitalists, combined for the disruption of labor organizations, ordered the "lockout," in view of abolishing sympathetic strikes, and, if possible, to maintain the "open shop."

Local No. 5 fought her own battle. The committee in charge did magnificent work

in getting our agreement signed. We maintained the "closed shop," and established the weekly pay, and, in all, it is a better agreement than the old one.

During this fight, and for the first time, we had to appeal for financial aid, which was responded to by the following locals: Nos. 1, 2, 14, 47, 68, 81, 92, 189, 199, 218, 379, 440, 26, 118, 382. To say the contributions were thankfully received and deeply appreciated, is putting it mild. No. 5 is profuse in her praise of the spirit of unionism as displayed by the St. Louis locals. No. 1 donated us \$150, and every local there came to the front. No. 26 sent us the sum of \$50. We thank them, one and all, and trust sometime to be able to repay their generosity.

I trust the Brotherhood will prosper under the new constitution. We have a lot of high-salaried organizers, which I hope shall do good work. They certainly have lots of material to work upon.

Philadelphia offered to supply the Pittsburgh contractors with five hundred non-union men with fifteen years' experience. Cleveland produced a bunch, as well as several other places.

Now, let the organizers get busy, and corral some of these individuals. And, as for the Worker, what's the use of going to such an expense, since we can't learn what's going on outside of our own town? As one of our brothers said: "If we want literature on 'Wireless Telegraphy,' 'Perpetual Motion,' 'Pickings from Puck,' &c., we can very easily obtain it without putting the Brotherhood to an expense of \$1,100 per month."

In conclusion, I will say there are more men in Pittsburgh at present than we can take care of, but whoever desires to come and join us they shall receive a brotherly welcome.

J. P. KERRIGAN.  
Pittsburg, Pa., Jan. 31, 1904.

#### NOTICE.

All members are requested to keep away from Boston, as we will not accept traveling cards while so many of our members are unemployed; as business in the building trades is exceptionally dull at present we have been forced to take this action.

Yours fraternally,  
F. J. REARDON, Secretary.



**NOTICE.**

We are requested to state that traveling cards will not be accepted by Local No. 114, Toronto, while so many of their members are idle.

**INFORMATION WANTED.**

If any one knowing the whereabouts of Dan Meany, of Chicago, would send his address to 3216 Prairie avenue, Chicago, care of E. T. Collins, sender would earn the gratitude of Brother Meany's mother.

Frank Brewster, Wm. Pogue and Dan Sullivan, let me hear from you at once regarding Logansport accident. Give me your address. Frank Coffey, 163 Columbia street, East, Detroit, Mich.

**TESTING LARGE ALTERNATORS.**

Alternators are tested usually by one of two methods. The first consists in operating the machine under various conditions of load, and the second, or what may be called the circulating method, currents corresponding to various loads are circulated in the armature, either by coupling two machines together or by connecting two sections of the armature or field coils in opposition. Mr. W. E. Burnand believes that the first system is unscientific and barbarous, and the second method does not give satisfactory results, because the machine is unbalanced. This unbalancing is both mechanical and electrical, the first due to the uneven strains on the armature, and, second, because the currents circulating under this condition set up armature reactions which differ from those under the normal conditions of load. He describes a method developed by himself, in which unbalancing is avoided by symmetrical grouping of the opposing sections of the armature, and current is circulated by means of a small alternator, geared to the generator shaft. By means of this small alternator any desired current may be circulated through the armature of the machine under test, and the power-factor may also be varied at will. The machine may therefore be run under conditions practically identical with those of actual operation. The output of the small alternator is the electrical loss in the generator armature. Regulation is determined

by volunteer readings taken across the two sections of the armature under test.—The Electrician (London).

**THE VARIATION OF ELECTRICAL RESISTANCE DUE TO LIGHT.**

The effect of light upon the electrical resistance of various materials has been investigated by Herr L. Ancel, and he has found that a number of materials other than selenium show this phenomenon. Among these are tellurium, lamp-black, and metals in very thin plates. Selenium, in spite of its sensibility, is inconvenient for constructing radiophonic receivers. It is costly, its resistance is high, and its conductivity is often irregular; and the action of the extra currents on opening the circuit frequently causes a loss of its properties. Lamp-black has not these faults, but it is less sensitive to light than selenium. If the latter substance is covered by lamp-black, one obtains a system having a greater sensibility than that of the two bodies taken separately. The effect of light on tellurium is opposite to that of heat, contrary to the case with lamp-black and selenium. Chemical analysis of these substances does not show any molecular variation. Researches are now going on which seem to indicate that the action of light is similar to that of the Hertz waves on coherers employed in wireless telegraphy. There is a sort of molecular instability which disappears rapidly, but not immediately, after the action of the light.—L'Electricien (Paris).

**POINTED PARAGRAPHS.**

A man's knowledge isn't as powerful as a woman's intuition.

Too many people have more religion outside than they have inside.

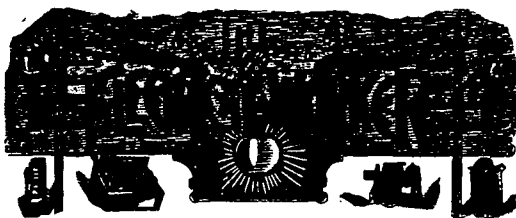
A man never believes he is really prejudiced even when he admits it.

Beware of the bunco men—also of women who are looking for rich husbands.

Many a man who carries a night key needs a wife to open the door for him.

Instead of remaining at the bottom of the ladder some men crawl farther down.

Many a small boy whose teacher tells him he may some day be President discovers later that he is better fitted for the position of janitor in a livery stable.



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As THE ELECTRICAL WORKER reaches the men who do the work and recommend or order the material, its value as an advertising medium can be readily appreciated.

WASHINGTON, D. C., FEBRUARY, 1904.

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*This Journal will not be held responsible  
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THE HENRY E. WILKENS PRINTING COMPANY

**THE OPEN SHOP.**

The paramount issue of to-day in labor circles is the open shop question. It has been agitated so fiercely by some members of the contractors' associations that they have almost convinced some of their members that it is only a question of a short while when all shops will be open, and that they will not be required to obey the dictates of

the labor unions. Then they can pay what they please and work the men as long as they like. But the poor deluded dollar chasers reckon wrong. The labor unions will keep up the fight against the open shop, for they realize that to allow this the so-called open shop would be but a place for men who have failed to comply with the constitution of their union, and would take refuge in the so-called open shops.

We are somewhat surprised to see that some of the electrical contractors have declared for an open shop. We wonder if they have stopped long enough to consider what the open shop means in the electrical field. Why, it simply means that every building they do wiring on must be termed an open shop. Do they stop long enough to consider that they are not only trying to compel the electrical workers to work in open shops, but the entire building trades? This would keep up a constant turmoil between employer and employee. We have no desire for warfare, but the open shop will not be considered for a minute. If there is anything we like it is consistency in men. We can never understand why a certain few men who are in business should want the privilege of belonging to a bosses union, formed for the purpose of protecting each other, then deny the men who labor the same right. We have no fear of the contractors getting the open shop, but if, by some hook or crook, they should succeed it won't be a victory that any act of theirs has accomplished, but through some weak-kneed, half-rate wireman, who is so blind that he can't see that the ultimate end is starvation wages. However, we know how to locate the nigger in the wood pile; we know why the bosses want open shops—for the reason that they want to be able to send the poor, half-rate, poorly-paid wiremen on a job, then charge the parties having the work done for a first-class man. There is the whole thing in a nutshell.

All this talk of independence is tommyrot; it's the long green that the contractors want. They are not satisfied with a fair profit; they want it all. Not one of them has ever worked at the trade, and very few would ever attempt to say that the wages paid are exorbitant. If this is true, what difference does it make to them

Feb. 1904

whether the shop is a closed one or not? We have always desired that fair agreements be entered into and kept, and we are somewhat surprised at the attitude of the bosses.

Members of the I. B. E. W., the question of open shops is up to you. Nip it in the bud, by giving your support morally and financially.

#### ARTICLE III, SECTION 9.

All Local Unions shall be compelled to live up to all agreements, unless broken by the other party or parties, which fact shall first be ascertained by the G. V. P. or G. P., their decision being subject to appeal to the E. B.

We wish to call the attention of our members to the above section of our constitution. This should be lived up to. If any contracts are broken let it be done by the other party or parties. No matter how much it may cost us to keep agreements, they must be kept, if we wish to convince all fair-minded men it is not the local unions that are violating agreements, but the other fellows.

#### AS TO TREATING.

We were very much interested in an article in one of the leading trade journals advising members of locals not to treat national officers when they visited them. We have been in harness as a national officer since 1893, and have visited many locals, but have yet to take a drink of intoxicating liquors in all these years. Much depends upon the national officer himself. We see no harm in a social glass or two. While we do not drink that is no reason every one has to stop. We have no fight to make against treating national officers, but we have against the fellow who uses the bar room as a meeting hall. Usually this same loud-mouth calamity howler will sit in a meeting and have not a word to say, but always has full swing as a bar room agitator. If this class could be kept quiet on the outside the labor movement would be better off.

#### REPORTS OF CONDITION OF WORK.

Baltimore, Md., dull. Washington, D. C., dull. Sacramento, Cal., fair. San Francisco, Cal., dull. Buffalo, N. Y., strike on. Rochester, N. Y., dull. New York, N. Y., dull. Kansas City, Mo., fair; Worcester, Mass., dull; Evansville, Ind., fair.

LOCAL UNIONS would confer a favor if they would send to the general office copies of their by-laws. Requests for copies of local by-laws are frequently made, and we would like to be able to supply the demand.

We wish to call the attention of our readers to a new electrical book we have on sale—"Modern Diagrams and Descriptions for Electrical Workers." This is one of the very best books we have seen, and will be a great help to the practical electrical worker. The price is \$1.50. Buy from the General Office; the Brotherhood gets the profit.

No. 17 desires to inform the cities of Duluth, Cleveland, and St. Louis, and all members of the Brotherhood for that matter, that one Leon Trombly is not a member of this local. No. 20, of Greater New York, has placed a fine of \$25 against him, and when he pays the amount into this local we will set him right before the Brotherhood through these columns. Ed. G. Smith, secretary.

#### NOTICE.

We have been requested by Local No. 366, of Allentown, Pa., to publish that Local No. 139, of Elmira, N. Y., won the gold watch recently raffled by them, and they wish to thank all brothers who contributed toward making the drawing a success.

#### INFORMATION WANTED.

Any information in regard to the whereabouts of Beach Hall will be appreciated. Geo. Paulson, Kenyon, Minn., Local No. 24.

Any one knowing the whereabouts of Dick O'Brien, traveling card No. 21,174, will confer a favor by notifying Geo. Schmatzinetz, business agent Local No. 14, 302 Grant street, Pittsburg, Pa.

Any one knowing the whereabouts of L. W. Kelly, or H. G. Folean will correspond with T. P. Debgal, Rockville Centre, New York.

Brother T. H. Reynolds, you are requested by Local 233, of Colorado Springs, Colo., to communicate at once with F. M. John, 318 N. Washsatch avenue, Colorado Springs, Colo.

## THE ELECTRICAL WORKER

## Grand Secretary's Report for January.

No.	P. C.	Int.	Sup.	But.	Totals.	No.	P. C.	Int.	Sup.	But.	Totals.
1	2 50				2 50	78	6 50				6 50
2	59 20	22 00			81 20	79	13 80	2 00	5 50		21 80
3			50 00		50 00	80	23 40	2 00	2 60	2 00	30 00
4	22 20		1 00		23 20	81			7 25		7 25
5	45 00	20 00	15 00		80 00	82	2 20				2 20
6	13 80	2 00			15 80	83	13 50		4 00		17 50
7			2 50		2 50	86	11 70		2 00		13 70
8	25 00		6 50		31 50	87	10 20	2 00	7 00		19 20
9	47 60	4 00			51 60	88	10 50			1 00	11 50
10			5 00		5 00	89	4 40				4 40
11	4 80		3 00		7 80	90	19 50	6 00			25 50
12	75 40	4 00			79 40	92	7 90				7 90
13	23 10	10 00	4 45		37 55	93			1 47		1 47
14	10 80	6 00			16 80	94	15 00	2 00	25		17 25
15	7 20	2 00	25		9 45	95	12 30	2 00			14 30
16	50				50	96	10 50	2 00			12 50
17	10 20		2 25		12 45	97	6 90				6 90
18	40 60		50		41 10	98	40 70		1 00		41 70
19	34 40		10 05		44 45	99	22 50	4 00	1 25		27 75
20	10 20	2 00	3 00		15 20	100	14 60	12 00	6 50		33 10
21	38 10	3 00			46 10	101	3 00	4 00	1 75		8 75
22	30 00	2 00	1 50		33 50	102			1 00		1 00
23	37 80		2 45		40 25	103	113 20	40 00	2 74		156 04
24	27 60		2 50		30 10	105	2 10				2 10
25	18 80		1 50		20 30	106	11 10		1 75		12 85
26	10 40	6 00			16 40	107	5 50	6 00	1 50		13 00
27	8 20		2 00		10 20	108	6 40	6 00			12 40
28	60 00		10 00		70 00	109	6 50				6 50
29	31 30	2 00	2 00		35 30	110	2 10				2 10
30	48 80	19 00			67 80	114	20 40	3 00			23 40
31	10 40		50		10 90	115	6 10	2 00	2 00		10 10
32	29 60	2 00	13 75		45 35	116	41 70	18 00	6 50		66 20
33	9 60	2 00	2 50		14 10	118	10 70				10 70
34	66 10	6 00	5 25		77 35	120	6 20		25		6 45
35	34 50		7 00		41 50	121			2 00		2 00
36	35 60	2 00	21 75		59 35	122	8 70				8 70
37	29 50	16 00	1 50	6 00	53 00	123	4 30				4 30
38	20 80	2 00	2 00		24 80	126	8 80	2 00	3 50		14 80
39	13 70		25		13 95	127	4 80		60		5 40
40	33 60		1 00		34 60	129	8 40		3 00		11 40
41	6 00		3 25		9 25	130	6 40	6 00			12 40
42	36 00	2 00	7 50		45 50	131			5 85		5 85
43	15 90		05		15 95	132		4 00			4 00
44	10 20	4 00			14 20	133			5 00		5 00
45	21 00	2 00			23 00	134			1 25		1 25
46	21 80	12 00	75		34 55	135	6 90				6 90
47	25 40	12 00	1 75		37 15	137	13 20	2 00			15 20
48	15 00				15 00	138	12 90		1 00		13 90
49	21 00		1 00		22 00	139	25 20	2 00	1 00		28 20
50	45 30		4 00		49 30	140	20 20	8 00			28 20
51	17 60		6 00		23 60	141	10 00		2 00	50	12 50
52	5 30		50	1 50	7 80	142	14 10	2 00			16 10
53	5 80	2 00	3 50		11 30	143	7 80	8 00	3 00		18 80
54	22 50	2 00	6 75		31 25	144	13 50		4 00		17 50
55			5 00		5 00	145	13 50	4 00	1 25		18 75
56			3 50		3 50	147	20 00		1 50		21 50
57	32 70	4 00	1 00		37 70	148	25 20	2 00	50		27 70
58	6 30		50		6 80	149	9 60	6 00	5 00		20 80
59	6 30		1 00		7 30	150	11 80	4 00	1 00		16 80
60	7 80				7 80	151	100 10	12 00	1 80		118 90
61	22 20				22 20	153	7 80				7 80
62	9 90		50		10 40	154	5 10	2 00	2 25		9 35
63	9 00				9 00	155			50		50
64	9 00		4 50		13 50	156			2 75		2 75
65	36 10	2 00	10 00		48 10	157	4 00				4 00
66						158	11 10	2 00	4 00		17 10

# THE ELECTRICAL WORKER

53

No.	P. C.	Int.	Sup.	But.	Totals.	No.	P. C.	Int.	Sup.	But.	Totals.
163	17 80	2 00	2 50		22 40	251			50		50
164	27 60	2 00			29 60	252	24 90	2 00			26 90
165	3 40				3 40	256	4 00		10 70		14 70
166	18 50	4 00	6 00		28 50	258	19 80				19 80
167	4 10				4 10	260	11 70				11 70
168	4 20		50		4 70	261			2 50		2 50
169	12 60	10 00			22 60	262	20 00	2 00	2 00		24 00
171	10 00		1 50	50	12 00	263	9 40				9 40
172	4 80				4 80	264	6 00	4 00			10 00
173	5 40		1 25		6 65	265	23 10	2 00			25 10
174	6 00	2 00	3 00		11 00	266	2 50	2 00	5 00		9 50
176	28 60				28 60	267			2 75		2 75
177			5 50		5 50	268	5 40		80		5 70
178	19 40	2 00			21 40	269	7 20				7 20
179			4 75		4 75	272	5 20	2 00	1 00		8 20
180	4 20				4 20	274	7 00		1 75		8 75
181	3 60				3 60	277	2 20		1 00		3 20
183	6 00				6 00	278	12 00		2 00		14 00
184			60		60	279			3 00		3 00
186			2 00		2 00	280	11 80	36 00			47 80
187	10 80		1 25		12 05	281	14 20				14 20
189			2 75		2 75	284	12 00		50		12 50
190	24 00	6 00			30 00	286	5 80		1 10		6 90
191	27 90	4 00	5 75		37 65	287	18 20		75		18 95
193	14 80		2 50		16 80	288	5 90	6 00	75		12 65
196	18 80	2 00	5 00		25 80	289			5 00		5 00
198	12 20	4 00	1 50		17 70	290	9 00				9 00
199			7 50		7 50	291			5 25		5 25
200			50		50	292	15 80		3 21		19 05
201	6 40	4 00	1 00		11 40	293	4 40				4 40
203	1 50		75		2 25	296	3 60				3 60
204	10 20				10 20	298	69 50	16 00			85 50
205	18 90		4 00		22 90	299	32 00	6 00	5 00		43 00
206	4 00				4 00	300			4 50		4 50
207			5 50		5 50	301	4 50		6 00		10 50
208	6 00				6 00	302	8 70	2 00	2 00		12 70
209	15 90		2 50		18 40	303	8 10		1 20		9 30
210	6 00				6 00	304	29 70				29 70
211	1 90		1 25		3 15	307	6 60				6 60
212	32 70	4 00			36 70	308	3 00				3 00
213	19 40				19 40	309	4 60	2 00	50		7 10
214	6 90	2 00	2 00		10 90	310	6 30		50		6 80
215			1 60		1 60	311	3 60		25		3 85
216	6 30		25		6 55	312			71		71
217	21 70	32 00	5 00		58 70	313	14 40		3 50		17 90
220	12 40				12 40	314	3 00				3 00
221	2 80				2 80	315	20 90	4 00			24 90
222	23 70	2 00	1 00		26 70	316	22 50	18 00	3 10		43 60
225	14 20	2 00	3 50		19 70	322	12 60		50		13 10
226	8 70		2 00		10 70	323	4 20				4 20
227	18 00		3 00		16 00	324	6 80				6 80
228	1 90				1 90	325	11 50	6 00	50		18 00
230	11 50		2 50		14 00	327			1 25		1 25
231	7 70	4 00	4 50		16 20	328	21 70	4 00	2 25		27 95
233	18 20	2 00			15 20	329	4 00				4 00
234	18 60	10 00			28 60	330	1 20	4 00			5 20
235	7 20	6 00			13 20	331	8 40		1 00		9 40
236	10 50	2 00			12 50	333	1 00		10		1 10
238	7 20	4 00	3 25		14 45	335	9 70	2 00	1 50		13 20
240	15 00	24 00			39 00	336	4 80				4 80
241	3 60		1 00		4 60	337	44 10	32 00	5 00		81 10
243	7 50	2 00	2 00		11 50	338	3 90	2 00	1 00		6 90
244	14 10				14 10	339	3 60		2 25		5 85
247	34 20	4 00	5 00		103 20	340	3 60		3 00		6 60
248	8 00		1 00		9 00	342	6 60	4 00	3 50		14 10
249	3 50		1 25		4 75	343	12 60	2 00	1 25		15 85

No.	P. C.	Int.	Sup.	But.	Totals.	No.	P. C.	Int.	Sup.	But.	Totals.	
844	11 30				11 30	435	6 00				6 00	
846	8 70				8 70	437		17 00	75		17 75	
847	11 00		1 50		12 50	438	13 00		8 25		21 25	
848	1 00				1 00	439	6 20	6 00	60		12 80	
849	5 00	2 00			7 00	441			1 70		1 70	
850	9 00	6 00	6 00		21 00	443	3 30				3 30	
852	6 30	2 00	75		9 05	444	3 00				3 00	
853	21 90	2 00	1 20		25 10	445	25 20	4 00	2 25		31 45	
855	3 60				3 60	446	8 40	3 00	1 00		12 40	
856	41 00	10 00			51 00	447			6 00		6 00	
859	6 60		2 00		8 60	448	2 40	2 00	1 00		5 40	
863		6 00	6 00		12 00	449	3 00		5 00		8 00	
864	4 20	8 00	25		12 45	450		5 00	7 50		12 50	
867	6 60	2 00			8 60	451		2 00	21 40		23 40	
868	1 80				1 80	452	4 50	2 00		75	7 75	
870	4 70		1 00		5 70	453		11 00	1 50	2 25	14 75	
871	4 60		2 00		6 60	454		7 00	15 00		22 00	
874	6 70		1 85		8 55	455		10 00	9 00		19 00	
875	5 80		30		6 10	456		8 00	10 00		18 00	
878	1 80	2 00			3 80	457		11 00			11 00	
879	21 20	4 00	3 00		28 20	458		11 00			11 00	
880	3 60				3 60	459		10 00			10 00	
881	30 00	15 00			45 00	460		11 00			11 00	
882	27 90		4 10		32 00							
883	4 80		50		5 30		\$4,614 90	\$894 00	\$722 77	\$15 50	\$6,247 17	
885	16 20		1 50		17 70		Supplies not sold through local unions..					75
886	7 20	2 00	10		9 30		Buttons not sold through local unions..					10 00
887	7 20	2 00	2 70		11 90		Robinson's Key Practical E. W.....					11 50
888	2 80				2 80		Sub. and advertisements in E. W.....					43 60
889	7 00		1 75		8 75		Dues from members G. O.....					4 90
890	20 40		60		21 00		Watch Charms.....					2 00
898	14 00		1 00		15 00		Whitehead & Hoag Company commis-					
894	5 80	2 00	60		8 40		sion on badges.....					1 40
895	18 80		2 50		16 30		Refunded by J. F. Buckley.....					61 15
897	4 20	1 00			5 20		Total.....					\$6,882 47
898	19 20	4 00	3 50		26 70		Fraternally submitted,					
899	18 30		1 00		19 30		H. W. SHERMAN,					
400	5 20				5 20		Grand Secretary.					
401	14 30	4 00	1 00		19 30		Grand Treasurer's Report for January.					
404	5 40	6 00		1 00	12 40		EXPENSES.					
405	6 20				6 20		F. J. McNulty, general expenses Decem-					
406	1 80		2 25		4 05		ber.....					101 75
408	7 50	4 00	1 75		13 25		F. L. Witters, general expenses Decem-					
409	4 10		1 00		5 10		ber.....					106 75
410	17 20	15 00			32 20		F. M. Seaman, legal services for 56,					
411	8 60		1 75		5 35		Erie.....					250 00
412	2 80				2 80		Death claim, No. 355, Chas. Sommers...					100 00
413	3 00				3 00		Death claim, No. 356, Wm. Thompson..					100 00
415	8 30		1 55		4 85		Death claim, No. 357, E. A. Leaman....					100 00
416	2 70				2 70		Death claim, No. 358, J. L. Turner.....					100 00
417	14 10		2 50		16 60		Death claim, No. 359, Jolly Potts .....					100 00
418	2 40		30		2 70		Death claim, No. 360, T. O'Leary.....					100 00
419	8 80		25		9 05		Death claim, No. 361, Geo. W. Beser....					100 00
422	7 10				7 10		Death claim, No. 362, Dave Fulton.....					100 00
423	3 40		60		4 00		Death claim, No. 363, D. Crayne.....					100 00
424	25 60	3 00	25		28 85		W. O. Marrin, org. in Port Huron, Mich.					8 81
425	3 30	4 00	90		8 20		Jas. Larisey, org. 453, Sumter, S. C.....					11 00
426	2 70				2 70		W. H. Singleton, org. 454, Charlotte,					
427	6 90				6 90		N. C.....					7 00
428	2 40				2 40		D. L. Taylor, org. 453, Trinidad, Colo....					10 00
429	5 00		50		5 50		Per capita tax to N. B. T. C. for 1904.....					10 00
430	3 60		2 75		6 35		H. E. Wilkens Printing Company, print-					
431	5 30		55		5 85		ing Electrical Worker and cuts.....					1,048 81
432	16 20	6 00			22 20		John Morrison, commission on ads.....					135 00
433	4 80	2 00			6 80							
434	25 00		1 00		26 00							

Sudwarth Printing Company, printing	
L. U. supplies.....	200 90
Sudwarth Printing Company, printing	
G. O. supplies.....	14 75
E. Morrison, office supplies.....	12 75
F. J. McNulty, salary, January.....	166 00
H. W. Sherman, salary, January.....	166 00
M. K. Clinton, salary, five weeks.....	90 00
F. F. Brown, salary, five weeks.....	65 00
B. B. Goebel, salary, five weeks.....	55 00
B. H. Goldsmith, salary, five weeks.....	55 00
L. Jackson, salary, five weeks.....	50 00
A. E. Malone, salary, five weeks.....	50 00
F. J. Sweek, salary, January.....	125 00
E. T. Mallory, salary, January.....	125 00
E. P. Allman, salary, January.....	125 00
Dale Smith, salary, January.....	125 00
F. L. Witters, salary, January.....	125 00
J. P. Connor, salary, January.....	125 00
M. J. Sullivan, salary, January.....	125 00
F. J. Sheehan, general expenses.....	51 53
Wm. T. Harris, rent.....	80 00
Janitor.....	8 00
E. T. Mallory, strike benefit 186, Hart-	
ford, Conn.....	500 00
Yawman & Erbe, mailing cabinet.....	22 80
Mailing Worker.....	65 00
Postage.....	77 27
Telegrams.....	9 96
Express.....	51 27
Telephone.....	4 50
Office supplies.....	8 55
Dale Smith, general expenses.....	127 05
E. P. Allman, general expenses.....	83 70
E. T. Mallory, general expenses.....	78 93
J. P. Connor, general expenses.....	66 85
F. J. Sweek, general expenses.....	74 65
F. L. Witters, general expenses.....	77 20
	5,716 78

## RECAPITULATION.

Amount on hand January 1, 1904.....	16,101 80
Receipts for January.....	6,382 47
	22,483 77
Expenses for January.....	5,716 78

Amount on hand February 1, 1904..... 16,766 99

Fraternally submitted,

F. J. SHEEHAN,  
Grand Treasurer.

## CHARTERS GRANTED IN JANUARY.

- No. 453, Sumter, S. C.
- No. 454, Charlotte, N. C.
- No. 455, Shawnee, Okla.
- No. 363, Montgomery, Ala.
- No. 456, Oklahomo, Okla.
- No. 457, Kenoska, Wis.
- No. 458, Aberdeen, Wash.
- No. 459, Cortland, N. Y.
- No. 460, Chickasha, Ind. Ter.

## NOTICE.

All brothers holding tickets for drawing to be given by Local 27, Baltimore, Md., will please have coupons and money in by February 22.

## THE RICH AND THE POOR.

The poor buy in driblets and pay enormous prices, writes Tip in the New York Press. Coal by the pailful in winter, ice by the "small piece" in summer; wood by the single bundle, beef by the half pound, ham by the slice, half a head of cabbage at a time, a cent's worth of salt, a single bar of soap, a quarter pound of tea, half a pound of coffee, two cents worth of sugar, a loaf of yesterday's bread! That's about the average.

The rich buy at wholesale, with discounts and double discounts off. There is a millionaire in upper Fifth avenue whose table is the envy of all swelldom, particularly in the matter of meats. He has the best steaks and roasts in America, and it is said that the former cost him \$1.00 a pound, the latter 65 cents. Nonsense! They cost him much less than they would us poor devils who scratch along for a living and take what we can get at the butcher's. This man has a cold storage room in his basement that holds a year's supply of meats, vegetables and fruits. It is a beautiful affair of porcelain cooled by the ammonia-brine process to any required temperature. Entire quarters of beef are hung there for months at a time. The owner is prepared to stand a long siege.

Our millionaire has an understanding with a prominent western butcher (owner of the biggest abattoir beyond the Mississippi river), who selects for him from time to time the choicest young beeves to be found among the vast herds that roam the plains. These are shipped in refrigerator cars and stowed away in the porcelain room. The cost is not over 18 cents a pound by the carcass. The quality is as near perfection as that which goes on the king's table. We slaves of toil pay 27 cents a pound for meat not nearly so good. In fact, only once or twice in a lifetime does an ordinary citizen, free, white and 21, tickle his palate with such beef. "Why do you buy the whole carcass?" a friend asked. "What does a man like you want with the



neck, flank, brisket, navel and shoulder?" "Ah, I have 30 servants to feed," replied the thrifty one. "And besides, the parts of the carcass which you have mentioned are far superior to the hind quarter for soups, stews, and hashes."

#### WHAT CONSTITUTES GREAT MEN.

Truly, no title is higher than man, and yet is it not strange that here, in this America of ours, after one hundred and twenty-eight years of life as a government, "conceived in liberty and dedicated to the proposition that all men are created equal," we are yet to a very, very great extent a nation of servile worshippers of title, of place, of position or possession.

This nonsensical and ignorant worship of titles, this aping and envying of the idle rich is all a denial of the great idea of unity, a denial of the noble ideal of equality which America is yet to work out, and that, indeed, is the only ideal that will inspire the truly great man.

When I say great man, I do not necessarily mean some public official who has held or is holding high office. I know a great many great men and very few of them have ever held public office; indeed, some of the greatest men I know of are women, and they are pretty generally barred from holding any office—barred by the laws.

I use the word man in the inclusive sense in speaking of the human race. When I am speaking or writing of horses the word includes the female as well as the male, the mare as well as the horse; just so does the word man include the race, and so I say that some of the greatest men that I know are women, and working women at that. Indeed, I do not see how anyone, man or woman, can claim any real greatness unless he or she is a worker.

Among the great men that I know are farmers, carpenters, machinists, common laborers, bricklayers, salesmen, musicians, teachers, stenographers, bookkeepers, artisans of all sorts, but all the great ones are workers.

I know of no man whom I would call great who simply talks. How can the people, the working people, understand or believe a man who only talks?

I believe the woman is as great as the

man. I believe with Walt Whitman that she is to be possibly greater than man as soon as she gets through with the nonsense of fiction and fashion and learns to take her place in real, stormy life as men do.

Indeed, Whitman says that she is by nature greater by reason of her "divine function of motherhood," and so he concludes with this proposition, which no one can deny: "I know of nothing greater than a man, unless it be the mother of a man."

But America can never be America while we continue this senseless worship of titles, of place or possession. Here the citizen is sovereign, the ideal and head, and the officials—the President, the senators, congressmen, governor, mayor, or what not, are mere agents for pay; yet millions of Americans speak of those officials as our rulers.

As a matter of fact, we have no rulers. This is the Old World idea of government, the aristocratic idea. In a democratic government, such as ours, the people are "self-governing." By that it is meant that every man should be capable of governing himself, and he should find that the joy and delight of his lifetime.

Now, as the New Year is a sort of beginning time, an era of good will and good resolutions and good actions, will it not be a splendid idea for us to begin, each man of us, to think of himself on this high plane as a self-governing being, and to think that no official, nor millionaire, nor billionaire, nor President, nor general, nor titled person of any sort, can by any possibility be anything greater than a man?—S. M. Jones.

#### FOOLS AND RICHES.

Most rich people are not men of means, but of ends.

A tract is a pamphlet, not to read, but to give to your friends.

Real wealth consists in having plenty of the right kind of supplies.

Poverty is a curse, and the poorest man is the paltry soul with a lot of money.

Civilization means the multiplication of wants; Christianity, the improvement of their quality.

Frank Crane, pastor of Union church, Worcester, Mass., in a recent talk on *The Poor Fool and the Fool Rich*, said:

From a good deal of religious teaching

we gather that if you are good you'll be rich, and if you get rich 'twill be a great pity.

The whole trouble lies in our definition of riches. Riches consist not in money, but in two things, character and friendships.

Dives was a fool because he thought, when he had become rich, that he was through, whereas to be rich is to be just begun.

There are two kinds of fools about money—the father who burns up his life in getting it, and the son who burns up his in getting rid of it.

Why should little Willie be taught in Sabbath school to be good, so that he may get on, and the Hon. William in his old age be exhorted to tremble because he has got on?

#### THE HURRY CRAZE.

Mankind was ever inconsistent. We see hordes of unhappy people jammed on the platforms of express trains on the elevated roads, most of whom could just as well ride on a slower "local" train arriving some six,

eight or perhaps ten minutes later. Mr. Jones stands in the lobby of an office building talking with a friend for fifteen or twenty minutes, and growls with rage when the elevator door closes just too late for him to catch that car and forces him to wait thirty or forty seconds for another; or works himself into ill temper over the snail's pace of the elevator system which takes two minutes to take him up to the top of the building. It is the same way in every phase of city life involving power transit; men grasp frantically at any device to save a few minutes or seconds of time, and demand all speed characteristics in local transit systems which, when analyzed, do not amount to the value of a dozen handkerchiefs a year to any person who utilizes his time sanely. Where is it all to stop?

Justice Harlan in delivering the decision of the United States Supreme Court, affirming the right of a State to fix the hours of labor on public works, says the wisdom of the law was not involved in this decision.

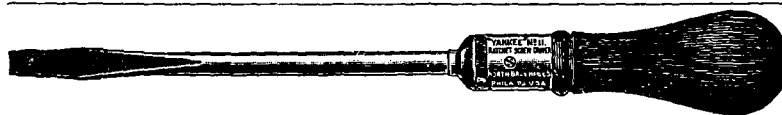
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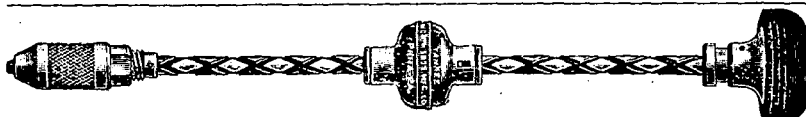
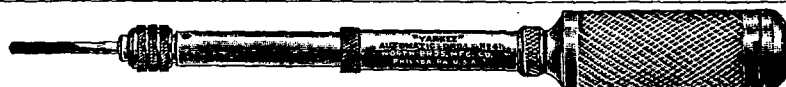
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PHILADE

### TO LEARN THE BUSINESS.

Starting at the bottom, but bound for the top, John D. Spreckels, jr., is behind the counter in the office of the Oceanic Steamship Company, of which his millionaire father, John D. Spreckels, is the president.

Young Spreckels sells tickets, hands out folders, and listens to complaints in a manner that has won the regard of his associates and the patrons of the company. He works from 9 a. m. to 5 p. m., with an hour off for luncheon.

Discussing his work, young Mr. Spreckels says:

"You see, I want to learn the steamship business from top to bottom. I want to learn every branch of the service. I am selling tickets here because this is a department I did not know anything about. Lots of people come in here with complaints—they have something to kick about. Now, I hear all these complaints and I learn what action should be taken concerning them.

"I hope some day to follow in my father's footsteps. Supposing I was down at the lower office, I could not be looking after my father's interests properly unless, when a person came in with a complaint, I should be in a position to know whether he or the company was in the wrong.

"I am fond of pleasure the same as everybody else, yet I know of no reason why I should not work because I happen to be a rich man's son. I want to be in a such a position that my father shall have the utmost confidence in my ability. I am willing to check freight, and I don't care what it is. I think that the only way to be successful in any business is to learn it from the ground-work up."

### REFLECTIONS OF A BACHELOR.

It would be very easy for a woman to get along with her husband if she could always be his widow.

Till she is married most any woman would trade shapely legs that can't be seen for curly hair that can.

A girl is mighty innocent when she doesn't pretend to be frightened when she is alone with a man in the room and the lights go out.

Generally you will find that when a man agitates in public devoting oneself to the interests of others at home nobody sits in the easy chairs for fear he should want them.

Married men are fools not to know that if they make their wives so happy they ought not to want their mothers with them, they will want them to come and see how happy they are.

### ELECTRIC POWER IN MINING.

The use of electric power in mining is gaining headway steadily. Its chief competitor to day is compressed air, which, for some classes of work, has certain advantages, such for instance as the operation of reciprocating drills. The exhaust from mining machinery operated by compressed air is rather an advantage than otherwise, but in amount is not sufficient to take the place of a ventilating system. In all other work electric power has the advantage. Indeed, in some cases the advantage of electric transmission is made use of to carry power to the percussion drill, and by means of a small portable compressor located at the drill, the latter is operated by compressed air. The outlook for an increased use of electricity in mining operations is exceeding bright, and while mining engineers are extremely conservative—and very properly so—they are beginning to realize the distinct advantages of electric power.

### THREE TIMES AND OUT.

Little Eddie had just returned from a juvenile party, to which he was allowed to go after promising he would endeavor to restrain his appetite at the table. His mother questioned him, and Eddie assured her that he had behaved becomingly.

"When Mrs. Brown urged me to take another piece of cake, I replied, 'No, thanks.'"

"Did she again ask you?"

"Yes. Then I told her I had enough. After awhile she once more asked me to have a piece."

"What did you answer?"

"I said what dad always says—I told her to take the damned stuff away."

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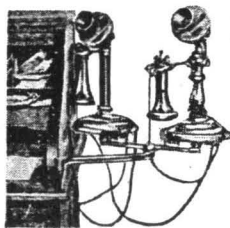
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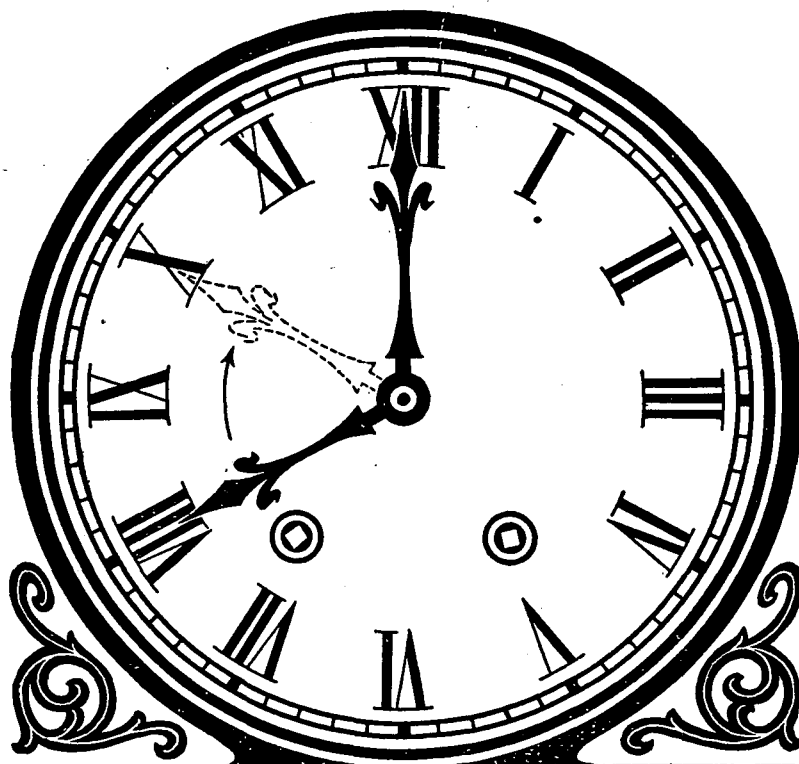


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There is nothing more certain than that if you fit yourself for advancement you will get it. We can help you do both if you will help yourself. Let's try—right now.

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<input type="checkbox"/> Electrician	<input type="checkbox"/> Chemist
<input type="checkbox"/> Mechanical Engineer	<input type="checkbox"/> Ornamental Designer
<input type="checkbox"/> Mechanical Draftsman	<input type="checkbox"/> Navigator
<input type="checkbox"/> Architect	<input type="checkbox"/> Bookkeeper
<input type="checkbox"/> Steam Engineer	<input type="checkbox"/> Stenographer
<input type="checkbox"/> Marine Engineer	<input type="checkbox"/> Ad Writer
<input type="checkbox"/> Civil Engineer	<input type="checkbox"/> Show-Card Writer
<input type="checkbox"/> Surveyor	<input type="checkbox"/> Window Dresser
<input type="checkbox"/> Mining Engineer	<input type="checkbox"/> To Speak French
<input type="checkbox"/> Sanitary Engineer	<input type="checkbox"/> To Speak German
<input type="checkbox"/> Telephone Engineer	<input type="checkbox"/> To Speak Spanish

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Locals are composed of branches of the trade, as per the following signs:

- \* Mixed. † Linemen. ‡ Inside Men.
- ‡ Trimmers. † Cranemen. † Cable Splicers.
- ° Switch-board Men. † Shopmen.

† No. 1, St. Louis, Mo.—Meets every Tuesday night at 8 o'clock at Lightstone's Hall, 1028 Franklin avenue. President, William Gilsdorf, 3921 West Twentieth street; recording secretary, H. J. Morrison, 5944 Theodora avenue; financial secretary, W. S. Peebles, 3119 Franklin avenue.

† No. 2, St. Louis, Mo.—Meets Saturday evenings at Electrical Worker's Hall, 1028 Franklin avenue. President, M. M. Nichols, 101 Cnanning avenue; recording secretary, J. A. Norton, 1549 Papin street; financial secretary, J. McManus, 1028 Franklin avenue.

† No. 3, New York.—Meets Tuesday and Thursday nights at Brevoort Hall, 154 East Fifty-fourth street. President, J. F. Bergen, 106 Concord street, Brooklyn; recording secretary, G. W. Whitford, 249 East One Hundred and Ninth street, New York City; financial secretary, W. A. Hogan, 304 East Fifty-fifth street, New York City.

† No. 4, New Orleans, La.—Meets first and third Wednesday evenings at Room No. 2 Odd Fellows Hall, Camp street, between La Fayette and Poydras. President, John H. McLin, 2323 First street; recording secretary, J. Criss, 2526 Melpomene street; financial secretary, Robert L. Reilly, 2908 Annunciation street.

† No. 5, Pittsburg, Pa.—Meets every Friday at Electrical Workers' Hall, 302 Grant street. President, James E. Bowk, 302 Grant street; recording secretary, J. S. Haskins, 302 Grant street; financial secretary, J. W. Considine, 302 Grant st.

† No. 6, San Francisco, Cal.—Meets every Wednesday night in Myrtle Hall, Alcazar building, 120 O'Farrell street. President, Geo. F. Keetley, 313 Eddy street; recording secretary, W. H. McConnell, 27 Sixth street; financial secretary, A. M. Schuman, 924 Florida street.

\* No. 7, Springfield Mass.—Meets every Monday at Room 219, Court Square Theater building. President, W. F. Kavanaugh, 221 Sumner street; recording secretary, George D. Beecher, 81 Tyler street; financial secretary, J. J. Collins, 110 Congress street.

† No. 8, Toledo, Ohio.—Meets Monday of each week at Friendship Hall, cor. Jefferson and Summit. President, J. W. Strub, 1220 Baker street; recording secretary, S. S. Hepburn, 3139 Summit avenue; financial secretary, M. C. Luttenberger, 423 Floyd avenue.

† No. 9, Chicago, Ill.—Meets every Saturday night 8 p. m., at Sam Jack's Hall, No. 7, 83 East Madison street. President, H. Cullen, 80 Aberdeen street; recording secretary, J. L. Collins, 5907 La Salle street; financial secretary, C. M. Paulson, 390 Park avenue.

\* No. 10, Indianapolis, Ind.—Meets every Monday at Morrison's Hall, Circle street. President, C. A. Sales, 1101 River avenue; recording secretary, J. C. Davis, 433 N. Capitol avenue; financial secretary, F. E. Swift, 729 S. Delaware street.

\* No. 11, Waterbury, Conn.—Meets every Friday at Carpenters' Hall, Schlitz bldg., Main street. President, P. J. Horgan, New street; recording secretary, G. H. Jenkins, 177 Bank street; financial secretary, R. McKensie, 89 So Main street.

\* No. 12, Pueblo, Colo.—Meets every Friday evening at Trades' Assembly Hall, Main street, between Third and Fourth streets. President, C. C. E. Emery, P. O. Box 57; recording secretary,

H. G. Brown, P. O. Box 70; financial secretary, G. R. Johnson, P. O. Box 70.

\* No. 13, El Paso, Tex.—Meets first four Mondays of each month at Masonic Temple, San Antonio street. President, C. A. Gilbert, Box 620; recording secretary, S. A. Milliron, Box 620; financial secretary, J. Blake, Box 620.

† No. 14, Pittsburg, Pa.—Meets every Thursday night at Electrical Workers Hall, 302 Grant street. President, J. V. Ferry, 302 Grant street; recording secretary, C. O. Skinner, 302 Grant street; financial secretary, George Schmatzinetz, 302 Grant street.

\* No. 15, Jersey City, N. J.—Meets first and third Fridays of each month at Filler's Hall, Palisade avenue, near Elevated R. R. President, H. S. Farrell, 109 Fourteenth street, Hoboken, N. J.; recording secretary, J. J. Byrne, 1218 Park ave., care Wilson; financial secretary, A. H. Wilson, 1218 Park avenue, Hoboken, N. J.

\* No. 16, Evansville, Ind.—Meets every Thursday night at Private Hall or rooms, 313½ Upper Third street. President, E. E. Hoskinson, 925 East Indiana street; recording secretary, S. T. Lockett, 216 Upper Second street; financial secretary, R. W. Dyer, 125 Upper Seventh street.

† No. 17, Detroit, Mich.—Meets every Monday evening at Johnson's Hall, 34 Monroe avenue. President, Chas. R. Lapworth, 955 Merrick avenue; recording secretary, E. G. Smith, 439 Elmwood avenue; financial secretary, F. W. Stubenvoll, 90 Noble street.

† No. 18, Kansas City, Mo.—Meets every Tuesday evening, at 1333 Grand avenue. President, J. T. Byars, 1819 Norton street; recording secretary, S. C. Harrington, 120 Penn street; financial secretary, Neil Callahan, 1224 Monroe avenue.

\* No. 19, Atchison, Kans.—Meets second and forth Fridays, Labor Union Hall, Seventh and Commercial streets. President, E. Emory, Mo. and Kans. Tel. Co.; recording secretary, O. B. Gilmore, 614 N. Sixth street; financial secretary, H. Dougherty, Mo. and Kans. Tel. Co.

† No. 20, New York City.—Meets every Tuesday night at Military Hall, 193 Bowery. President, John Griffith, 121 Willoughby street, Brooklyn; recording secretary, W. D. Hubbard, 193 Bowery; financial secretary, P. McLaughlin, 149 N. Portland avenue, Brooklyn.

† No. 21, Philadelphia, Pa.—Meets every Friday at Elks' Hall, 232 North Ninth street. President, Edw. E. Ferry, 841 Church Lane; recording secretary, H. C. McClannahan, 509 Race street; financial secretary, T. Wotocheck, care of Bell Telephone, Front and Berks streets.

† No. 22, Omaha, Nebr.—Meets first and third Wednesdays of each month at Labor Temple, Fifteenth and Dodge streets. President, Chas. Granden, 1502 N. Nineteenth street; recording secretary, H. P. Kerr, 2245 N. Nineteenth street; financial secretary, J. Corr, 4123 No. Twenty-fourth street.

\* No. 23, St. Paul, Minn.—Meets first and third Mondays at Federation Hall, Third and Wabasha streets. President, Edward Rowan, 715 Lee avenue; recording secretary, C. W. Berryman, 650 Rice street; financial secretary, J. B. Hilton, P. O. Box 232, North St. Paul, Minn.

† No. 24, Minneapolis, Minn.—Meets second and fourth Tuesdays at Union Temple, 26 So. Washington avenue. President, A. H. Sellars, 127 E. 25th street; recording secretary, Frank Flanagan, 811 Fifth street, south; financial secretary, John J. Reynolds, 2316 Fourth ave., south.

\* No. 25, Terre Haute, Ind.—Meets every Tuesday at C. L. U. Hall, 626½ Wabash ave. President, A. R. Markie, 1027 Seventh avenue; recording secretary, C. Shoaf, Citizens Tel. Co.; financial secretary, Lee Dickerson, 509 S. Thirteenth street.

† No. 26, Washington, D. C.—Meets every Thursday, corner Sixth and G streets, N. W. President, C. Yeabower, 404 I street, N. E.; recording secretary, E. A. Nelson, Jr., 1823 F street, N. E.; financial secretary, A. Longpre, 1332 Eighth street.

†No. 27, Baltimore, Md.—Meets every Monday evening at Border State Bank building, Park avenue and Fayette street. President, A. Rutledge, 718 St. German street; recording secretary, G. W. Spillman, 1219 Carroll street; financial secretary, J. Connelly, 1728 N. Bond street.

†No. 28, Baltimore, Md.—Meets every Thursday at 8 p. m. at 506 East Baltimore street. President, W. W. Davis, 505 N. Monroe street; recording secretary, W. S. Derden, 1120 N. Carey street; financial secretary, Geo. J. Schmidt, 241 Milton avenue.

\*No. 29, Trenton, N. J.—Meets every Tuesday evening at Ribsam building, corner Front and Broad streets; fourth floor; take elevator. President, Chas. Gordon, 32 Chapple street; recording secretary, Wm. M. J. Wood, 60 W. End ave.; financial secretary, A. C. Widmyer, 211 W. Hanover street.

†No. 30, Cincinnati, Ohio.—Meets every second and fourth Wednesday at Cosmopolitan Hall, 1818 Vine street. President, Virgil Burbridge, 1787 Denham street; recording secretary, Fred. Seidel, 2322 Harrison avenue; financial secretary, C. A. Palmer, 4222 Cherry street.

\*No. 31, Duluth, Minn.—Meets first, third and fifth Thursday of each month, in Axa Building, 221 West Superior street. President, Ralph A. Biddle, Duluth, Minn.; recording secretary, C. W. Higgins, 418 8th ave. west; financial secretary, W. L. Otis, 114 South 15th ave., east.

\*No. 32, Lima, Ohio.—Meets first and third Tuesdays at Donze Hall, South Main street. President, Harry Davidson, 321 McPherson avenue; recording secretary, Charles L. Stoutt, 854 E. North street; financial secretary, Ed. Wentworth, 531 W. Kibbey street.

\*No. 33, New Castle, Pa.—Meets every Wednesday night at G. A. R. Hall, corner of East and Washington streets. President, S. A. Wilken-son, Crawford ave.; recording secretary, F. D. Kingsley, 68 Pearson street; financial secretary F. L. Truby, rear 124 W. Annock ave.

†No. 34, Peoria, Ill.—Meets first and third Mondays at Pettitt's Hall, 209 Liberty street. President, Geo. M. Akers, 1808 Lincoln avenue; recording secretary, F. W. Mattlin, Kelley's Hotel, 110 Adams street; financial secretary, E. Peek, 1001 Monroe street.

\*No. 35, Massillon, Ohio.—Meets second and fourth Wednesdays at Trades' and Labor Assembly Hall, McAymonds Block. President F. F. Flickinger, 188 Richville avenue; recording secretary, R. S. Hardgrove, 22 E. Charles street; financial secretary, A. Shorb, 382 West Tremont street.

†No. 36, Sacramento, Cal.—Meets Friday night at 1019 J street. President, G. J. Wilson, 918 K street; recording secretary, A. McDonald, 2530 M street; financial secretary, J. Noonan, 1120 Twentieth street.

†No. 37, Hartford, Conn.—Meets every Thursday in Foster Block, Room 10, 244 Asylum street. President, William Delair, 98 Trumbull street; recording secretary, John Bartlett, 51 Adline street; financial secretary, Maurice Collins, 82 Allyn street.

†No. 38, Cleveland, Ohio.—Meets every Tuesday at Foresters' Hall, 223 Champlain street. President, R. W. McIntyre, 176 Lakewood avenue; recording secretary, Wm. J. Young, 390 Prospect street; financial secretary, Frank Estinghausen, 88 Prospect street.

\*No. 39, Cleveland, Ohio.—Meets every Thursday at Arch Hall, 398 Ontario street. President, F. Hall, 88 Elton street; recording secretary, Geo. H. Gleason, 83 Prospect street; financial secretary, F. J. Sullivan, 83 Prospect street.

\*No. 40, St. Joseph, Mo.—Meets Wednesday at A. O. U. W. Hall, 8th and Locust streets. President, Charles A. Waller, City Plant, Fifth and Olive streets; recording secretary, Wm. Dorsel, 1710 Calhoun street; financial secretary, Chas. B. Ellis, 1202 North Third street.

†No. 41, Buffalo, N. Y.—Meets every Thursday at Council Hall, cor. E. Huron and Ellicott streets. President, L. L. Mills, 564 W. Utica street; recording secretary, E. W. Brown, 300 Vermont

street; financial secretary, George Wallser, 115 West avenue.

†No. 42, Utica, N. Y.—Meets first and third Fridays, at Labor Temple, 18 Hotel street. President, A. Durr, 8 Louise street; recording secretary, C. R. Stringer, 22 Cornelia street; financial secretary, Geo. Brimfield, 48 Cooper street.

†No. 43, Syracuse, N. Y.—Meets Fridays at Bartenders' Hall, Empire Block, West Genesee street. President, Carl Kinney, 416 P. O. Box; recording secretary, James A. Andrews, 513 N. Salina street; financial secretary, John Kerwin, 105 Belmont avenue.

\*No. 44, Rochester, N. Y.—Meets every other Wednesday at Electrical Workers' Hall, 86 State street. President, J. Desmond, 288 Glenwood avenue; recording secretary, P. H. Brennan, 42 Bartlett street; financial secretary, W. C. Carroll, 120½ Monroe avenue.

†No. 45, Buffalo, N. Y.—Meets second and fourth Saturdays at Schwartz' Hall, corner Goodell and Washington streets. President, James Shane, 78 South Division street; recording secretary, C. W. Brown, 120 Demond Place; financial secretary, J. E. McCadden, 255 Seventh street.

†No. 46, Lowell, Mass.—Meets every Thursday evening at Engineers' Hall, Wyman's Ex. building, Central and Merrimac streets. President, Geo. W. Conant; recording secretary, Geo. Smith; financial secretary, G. C. Smith, 104 So. Whipple street.

\*No. 47, Sioux City, Iowa.—Meets first and third Wednesday of each month at B. T. C. Hall, 424 Toy Block, corner Fourth and Jackson streets. President, Arthur G. Garston, Reinhardt Hotel; recording secretary, N. J. Nelson, 1123 West Third street; financial secretary, Bert J. Boucher, Vendome Hotel.

\*No. 48, Richmond, Va.—Meets every Tuesday night, at McDonough's Hall, 700 W. Broad street. President, L. J. Johnson, 60 S. Seventh street; recording secretary, F. A. Fry, 608½ China street; financial secretary, J. D. Hamilton, 812 Brooks avenue.

†No. 49, Chicago, Ill.—Meets first and third Wednesdays, at 86 Madison street. President, J. Hodges, 6316 Jackson Park ave.; recording secretary, C. Cornell, 382 West Erie street; financial secretary, J. C. Jensen, 5841 Shields avenue.

\*No. 50, Belleville, Ill.—Meets second and fourth Tuesdays at Antlers' Hall, A and Spring streets. President, Henry Christian, 103 East Main street; recording secretary, James Workman, 117 South Church street; financial secretary, F. W. Stark, 519 East C street.

†No. 51, Monclova, Coahuila Mex.—President, F. B. Wallace, Monclova. Coahuila; financial secretary, J. T. Morrison, Estacion, Monclova.

†No. 52, Newark, N. J.—Meets Monday nights at Electrical Workers' Hall, 236 Washington street. President, C. P. Taylor, 569 Hunterdon street; recording secretary, Wm. R. Banks, 93 Myrtle avenue, Vallesburg, N. J.; financial secretary, Edmund L. Beatty, 804 S. Ninth street.

\*No. 53, Harrisburg, Pa.—Meets every Thursday at Holtsman's Cigar Store, 316 South Market street. President, Andrew C. Shadler, 223 Locust street, Steelton Pa.; recording secretary, Chas. S. Ebersole, 133 South Fourteenth street; financial secretary, Carl A. E. Andersen, 46 Summit street.

\*No. 54, Columbus, Ohio.—Meets every Thursday evening, at Winter's Hall, 141½ E. Main street. President, Ed. Day, Citizens' Telephone Co.; recording secretary, D. C. Hagerty, 1100 Summit street; financial secretary, J. A. Pilger, 2498 Medary avenue.

\*No. 55, Des Moines, Iowa.—Meets every Thursday night at Trades' and Labor Assembly Hall, between Seventh and Eighth on Locust street. President, Owlin MacCurrier, 1311 East Walnut street; recording secretary, Harry Frazy, 950 Fifth street; financial secretary, Charles Ladin, Thirty-eighth and Woodland avenue.

\*No. 56, Erie, Pa.—Meets first, third and fifth Mondays at C. M. B. A. Hall, 721 State street. President, H. M. Kistner, Moore House; recording secretary, Jas. Higgins, 118 E. Fourth street;

financial secretary, Jas. J. Reid, 1309 Sassafras street.

†No. 57, Salt Lake City, Utah.—Meets every Thursday evening at Electrical Workers' Hall, 11 West First street, South. President, Robert Shipman, Box 402; recording secretary, H. M. Murray, Box 402; financial secretary, J. R. Currie, Box 402.

\*No. 58, Niagara Falls, N. Y.—Every Friday at Mayle Hall, 723 Third street. President, William Watts, 1629 Whirlpool street; recording secretary, H. W. Davis, 2202 Main street; financial secretary, C. P. Mingay, 1202 Center avenue.

†No. 59, St. Louis, Mo.—Meets Mondays at 8 p. m. at Lightstone's Hall, 1028 Franklin avenue. President, M. A. P. Walsh, 3962 N. Market street; recording secretary, W. D. McSorley, 1446 North twenty-first street; financial secretary, Thos. Cahill, 1331 North Jefferson avenue.

\*No. 60, San Antonio, Tex.—Meets first and third Saturdays at Red Men's Hall, St. Mary's street. President, J. P. Broderick, 722 South Pine street; recording secretary, W. B. Freeman, 303 Mayevick street; financial secretary, John Thompson, 319 Lubock street.

†No. 61, Los Angeles, Cal.—Meets every Thursday at Council of Labor Hall, 488½ South Spring street. President, M. B. Davidson, University Station; recording secretary, G. Wardman, 342½ South Tremont street; financial secretary, S. D. Voerhees, 124 East Third street.

\*No. 62, Youngstown, Ohio.—Meets first and third Tuesdays at Finn's Hall, northwest corner of Public Square. President, C. A. Onstott, 613 Covington street; recording secretary, M. McCabe, 245 East Rayen avenue; financial secretary, Bert Beaver, 212 Belmont avenue.

\*No. 63, Warren, Pa.—Meets first and third Fridays at K. of H. Hall, Second streets. President, John Burns, New York and Pennsylvania Tel. Co., Warren, Pa.; recording secretary, C. W. Simpson, Warren, Pa.; financial secretary, N. H. Spencer, Box 1094, Warren, Pa.

†No. 64, Youngstown, Ohio.—Meets Wednesdays at Finn Hall, Public Square. President, David Maloney, Woodland avenue; financial secretary, W. H. Griffith, 515 Griffith street.

\*No. 65, Butte, Mont.—Meets first and third Saturdays at I. O. G. T. Hall, West Broadway. President, L. E. Woodworth, P. O. Box 846; recording and financial secretary, F. W. Cochrane, P. O. Box 846.

\*No. 66, Houston, Tex.—Meets first and third Wednesdays at Labor Hall, corner Preston and Caroline streets. President, J. B. Shipp, 1010 Prairie avenue; recording secretary, J. E. Couch; financial secretary, Thos. M. Flavin, 2702 Runnells avenue.

\*No. 67, Quincy, Ill.—Meets second and fourth Thursdays at Trade and Labor Hall, 619 Main street. President, L. S. Hull, 1315 Vermont street; recording secretary, R. R. Richards, 555 Elm street; financial secretary, J. W. Redmond, 543 South Fourth street.

†No. 68, Denver, Colo.—Meets every Monday at 218 Charles Block, Fifteenth and Curtis streets. President, L. E. Norquist, 3331 Clayton street; recording secretary, G. G. Macy, P. O. Box 614; financial secretary, C. A. Nickerson, P. O. Box 614.

†No. 69, Dallas, Tex.—Meets every Thursday night at Labor Temple, 401 Main street. President, L. D. Short, 224 Columbia avenue; recording secretary, R. R. Richards, 555 Elm street; financial secretary, George W. Smith, 239 North Lancaster street.

\*No. 70, Cripple Creek, Colo.—Meets every Wednesday at Electrical Workers' Hall, Fairley & Lampman block. President, T. N. Jones, Box 684; recording secretary, Chas. Sallstrom, Box 684; financial secretary, E. P. Steen, Box 684.

\*No. 71, Lancaster, Pa.—Meets every Sunday morning at 9:30 in Central Labor Union Hall, South Queen and Mifflin streets. President, James W. Brann, 315 W. James street; recording secretary, Wm. R. Blair, 341 E. Walnut street; financial secretary, Wm. S. Shaw, 231 N. Queen street.

\*No. 72, Waco, Tex.—Meets second and fourth Saturday nights at Labor Hall, Sixth and Frank

lin streets. President, J. P. Blystone, 513 Novetty street; recording secretary, F. B. Wornack, 805 Franklin street; financial secretary, J. E. Caple, 411 Washington street.

\*No. 73, Spokane, Wash.—Meets every Monday Central Labor Hall, First and Post streets. President, W. A. Davis, South Post, between Third and Fourth streets; recording secretary, M. McCain, 1503 Mallon avenue; financial secretary, D. W. Eberlin, 2514 E. Sixth street.

\*No. 74, Winona, Minn.—Meets first and third Thursdays at Electrical Workers' Hall, 67 East Third street. President, George Morrison, 510 Olmstead street; recording secretary, John P. Fromm, 467 East Fourth street; financial secretary, H. B. Kline, 510 Olmstead street.

†No. 75, Grand Rapids, Mich.—Meets Second and fourth Tuesdays at Lockerbey Hall, No. 3, Fountain street. President, C. Lawrence; recording secretary, F. J. Dickerson, 20 Turner street; financial secretary, J. Maskel, 93 James street.

\*No. 76, Tacoma, Wash.—Meets first and third Saturdays in Union Hall, 721 Commerce streets. President, A. M. Craig, South Fifty-eighth and O streets; recording secretary, J. E. Willis, 4121 Thomson avenue; financial secretary, C. A. Young, 4110 Yakima avenue.

†No. 77, Seattle, Wash.—Meets every Thursday at Musicians' Hall, 1420 Second avenue. President, John Wilson, 1818 Ninth avenue, south; recording secretary, Chas. Lehl, 1529 Fourth ave.; financial secretary, Geo. W. Walters, 222 Sixth avenue, north.

†No. 78, Chicago, Ill.—Meets first and third Fridays of each month at 155 East Randolph street. President, E. J. Cassin, 1091 South St. Louis avenue; recording secretary, Fred Cohrs, 5625 Dearborn street; financial secretary, G. H. Foltz, 975 Clifton Park avenue.

†No. 79, Syracuse, N. Y.—Meets first and third Mondays at Myers' Hall, corner of East Genesee and Montgomery streets. President, Edward Gyatt, 305 McBride street; recording secretary, Cornelius O'Connor, 503 Hawley avenue; financial secretary, V. S. Whitney, 236 West Onondaga street.

\*No. 80, Norfolk, Va.—Meets every Tuesday at I. B. E. W. Hall, 268 Main street. President, H. A. Brock, P. O. Box 232; recording secretary, J. H. T. Smith, P. O. Box 232; financial secretary, E. E. Mathews, P. O. Box 232.

\*No. 81, Scranton, Pa.—Meets second and fourth Monday at 220 Lackawana avenue. President, D. Laverty, 313 Mulberry street; recording secretary, Wm. W. Luce, 208 S. Hyde Park; financial secretary, T. B. Sturdevant, 905 Cedar avenue.

\*No. 82, Henderson, Ky.—Meets first and third Tuesdays in each month in Powers' Hall, First street. President, A. F. Braum, 327 Second street; recording secretary, H. B. Jones, 219 Green street; financial secretary, A. J. Quinn, 318 N. Elm street.

\*No. 83, Milwaukee, Wis.—Meets every Friday at Lipp's Hall, corner Third and Prairie streets. President, J. R. Barry, 1326 Fon Du Lac avenue; recording secretary, O. A. Blackwood, 829 Franklin street; financial secretary, Nick Daleiden, 846 Thirty-third street.

\*No. 84, Atlanta, Ga.—Meets every Tuesday in Federated Trades Hall. President, George W. Olwell, 78 Marietta street; recording secretary, J. Abbott, 101 Capitol avenue; financial secretary, A. R. Rogers, 421 Central avenue.

\*No. 85, Sault Ste. Marie, Ontario, Can.—Meets every second and fourth Thursday at Turner Block, Queen and Brock streets, Northwest. President, E. C. Duffin, Sault Ste. Marie, Ont.; recording secretary, H. Lamberton, Sault Ste. Marie, West P. O.; financial secretary, R. B. Johnston, P. O. Box 470, Sault Ste. Marie, Ont.

†No. 86, Rochester, N. Y.—Meets every Monday at Electrical Workers Hall, 86 State street. President, W. W. Johnson, 49 Hudson street; recording secretary, H. E. Erhardt, 15 Lamberton Park; financial secretary, A. C. Begy, 52 Centennial street.

†No. 87, Newark, N. J.—Meets every Friday at Electrical Workers' Hall, 236 Washington street. President, W. McDonald, 332 Bank street; recording secretary, J. Leger, 360 S. Orange ave-

financial secretary, F. R. Greenwood, 50 Clinton street.

\*No. 88, Savannah, Ga.—Meets second and fourth Monday evenings at Odd Fellows Hall, corner Whitaker and President streets. President, M. L. Walton, Box 316; recording secretary, J. Farbstein, Box 316; financial secretary, A. C. Brickmann, Box 316.

\*No. 89, Akron, Ohio.—Meets every other Friday at 39 Viaduct. President, G. M. Swarts; recording secretary, F. F. Loomis; F. F. Loomis, 111 Viaduct.

†No. 90, New Haven, Conn.—Meets every Saturday evening at Forester's Hall, 781 Chapel street. President, Sam'l Johnson, care Postal Tel. Cable Co.; recording secretary, John White, 33 First ave., West Haven; financial secretary, Frank Tanner, 156 Congress avenue.

\*No. 91, Easton, Pa.—Meets second and fourth Friday nights at Easton Journal Building, Church street between Sitgreaves and North Third streets. President, George Strouse, Summit avenue, Phillipsburg N. J.; recording secretary, T. A. Martin, 808 Wilkesbarre street; financial secretary, W. C. Pearce, 40 Wilkesbarre street.

\*No. 92, Hornellsville, N. Y.—Meets second and fourth Saturdays at 8 P. M., B. of P. T. Hall, Arcade Building, Broad street. President, C. M. Kelly, 38 Broad street; recording secretary, Max Lundregan, 38 Broad street; financial secretary, H. S. Brown, Krille Tel. Co.

\*No. 93, East Liverpool, O.—Meets every Wednesday night, in Smith-Fowler Building, on Diamond. President, H. Hetzel, corner Robinson and Walnut streets; recording secretary, S. G. Cowles, P. O. Box 382; financial secretary, R. C. Baxter, 178 Monroe streets.

\*No. 94, Kewanee, Ill.—Meets second and fourth Saturday nights each month at Federation Hall, 218 N. Tremont street. President, James Tye, Kewanee, Ill.; recording secretary, William H. Finley, 404 Rice street; financial secretary, Frank A. Hyde, 429 S. Tremont street.

\*No. 95, Joplin, Mo.—Meets every Thursday night at Labor Hall, Sixth and Wall streets. President, L. L. Haggard, 508 Amanda avenue; financial secretary, Chas. Nelson, Box 461.

\*No. 96, Worcester, Mass.—Meets every Monday at Piper Hall, 419 Main street. President, L. D. Bull, 422 Park avenue; recording secretary, S. B. Wilker, 19 Shafner street; financial secretary, S. A. Strout, 419 Main street.

\*No. 97, Mt. Vernon, O.—Meets every first and third Saturday night, at Quindaro, I. O. O. F., Hall, South Main street. President, F. D. Morrison, Mt. Vernon, Ohio; recording secretary, J. C. Jacobs, Mt. Vernon, Ohio; financial secretary, O. D. Layman, Ridgewood avenue.

†No. 98, Philadelphia, Pa.—Meets every Tuesday night at Elks' Hall, 232 N. Ninth street. President, G. Coleman; recording secretary, F. Peterson; financial secretary, Jas. S. Meade, 1321 Arch street.

†No. 99, Providence, R. I.—Meets every Monday night at Hanley Hall, 68 Washington street. President, A. W. Seavey, No. 1 Falcon street; recording secretary, R. A. Ripley, 1 North Court street; financial secretary, C. A. Brayton, 80 Wilson street.

\*No. 100, Jacksonville, Fla.—Meets Tuesdays at Tob's Hall, Bay street, corner Ocean. President, C. H. Bradford, 702 W. Adams; recording secretary, W. B. Morehead, 422 W. Church street; financial secretary, S. B. Kitchen, 722 W. Monroe street.

†No. 101, Middletown, N. Y.—Meets first and third Thursday night at 8 p. m. at Middletown, N. Y., King and Center street. President, Frank J. Schaefer, 80 Cottage street; recording secretary, J. V. Callaghan, 37 Beattie avenue; financial secretary, C. J. Cunningham, 6 Knapp avenue.

†No. 102, Paterson, N. J.—Meets every Thursday evening at Helvetia Hall, 56 Van Houten street. President, Frank H. Hopper, 50 Haledon avenue; recording secretary, N. Merrick, 74 Bloomfield avenue; financial secretary, R. Clark, 87 Benson street.

†No. 103, Boston, Mass.—Meets every Wednesday at Dexter Hall, 987 Washington street.

President, L. W. E. Kimball, 5 Medland street, Dorchester, Mass.; recording secretary, Fred. J. Reardon, 48 Mystic street, Charleston, Mass.; financial secretary, John W. Berton, 126 Cherry street, Charleston, Mass.

†No. 104, Boston, Mass.—Meets every Tuesday at Appleton Hall, 9 Appleton street. President, Michael Birmingham, 37 Brockett street, Brighton, Mass.; recording secretary, John A. McInnis, 23 Oak Grove Terrace, Roxbury, Mass.; financial secretary, Leod MacLeod, 107 Main street, Winchester, Mass.

\*No. 105, Hamilton, Ont.—Meets second and fourth Thursday at Trades and Labor Hall, 17 Main street, East. President, C. Fry, 114 North Ferguson avenue; recording secretary, Wm. Wilson, 211 Wentworth street; financial secretary, Jas. Donaldson, 109 Maria street.

\*No. 106, Jamestown, N. Y.—Meets Monday evening at Warner Block, Room 9, second floor. President, W. J. Bell, Hotel Ellicott; recording secretary, George H. Leburg, 802 East Second street; financial secretary, Wm. J. Torrey, 44 Park street, Jamestown, N. Y.

\*No. 107, Pittsburg, Kans.—Meets every Tuesday at Schielferbine Hall, Sixth and Broadway. President, Thomas Frew, 603 E. Seventh street; recording secretary, Rex Camblin; general delivery; financial secretary, Paul Mattingly, care Home Telephone Co.

\*No. 108, Tampa, Fla.—Meets every Thursday night at Labor Union Hall, Franklin and Fortune streets. President, Jas. A. Arnold, 108 Cass street; recording secretary, James T. Maxon, Florida avenue and Scott street; financial secretary, John F. Vaughan, W. Twelfth ave.

†No. 109, Davenport, Iowa.—Meets first and third Tuesdays at Lahrman's hall, Second and Ripley streets. President, Clifton Penry, 523 Brady street; recording secretary, H. F. Mickey, 1116 West Fourth street; financial secretary, Jas. Dallner, 202 East Fifth street.

\*No. 110, Sandusky, Ohio.—Meets first and third Friday nights at Fusch's Hall, corner of Monroe and Fulton streets. President, C. McNeal, Jefferson street; recording secretary, Wm. Windisch, 506 Pearl street; financial secretary, Chas. Littleton, 321 Scott street.

\*No. 111, Honolulu, Hawaii.—Meets first and third Thursdays at 7.30 p. m., Brooklyn Hall, Alaken between Queen and Merchant streets. President, Carl M. Taylor, Box 661; recording secretary, John Trueman, Hawaiian Electric Co.; financial secretary, A. R. G. McCormick, 1124 Adams Lane.

\*No. 112, Louisville, Ky.—Meets every Tuesday night at Germania Hall, 107 W. Jefferson street. President, Joe E. Bryant, 1624 Wilson; recording secretary, H. W. Rowlett, R. F. D. 2; financial secretary, F. H. Weaver, 738 Washington street.

†No. 113, Colorado Springs, Colo.—Meets every Friday at A. O. H. Hall, over Voorhees' store, 22 South Tejon street. President, Frank Graham, 103 Summitt street; recording and financial secretary, Wm. E. Waldron, Box 746, Colorado City, Col.

†No. 114, Toronto, Can.—Meets first and third Wednesdays at Temple Building, corner Bay and Richmond streets. President, W. J. Middleton, F. Shaftsbury avenue; recording secretary, W. 18 Partello, 24 Louisa street; financial secretary, G. C. Beckett, 61 Duke street.

\*No. 115, Austin, Tex.—Meets second and fourth Wednesdays at Trades Council Hall, over 1000 Cong. avenue. President, Geo. B. Fletcher, 110 W. avenue; recording secretary, E. D. Bralley, 509 Long ave.; financial secretary, B. B. Beard, 907 E. Third street.

†No. 116, Los Angeles, Cal.—Meets every Tuesday at Brents Hall, 547 South Spring street. President, E. Sterns, 1124 West Twenty-first street; recording secretary, W. H. Williams, 524 B Torme street; financial secretary, H. M. Scott, 547 Fickett street.

\*No. 117, Elgin, Ill.—Meets first and third Thursday, at Trades Council Hall, 102 Douglas avenue. President, I. C. Burney, 816 North Crystal street; recording secretary, T. H. Bryson, 226 Welling-

FEB. 1924

ton avenue; financial secretary, T. C. Wetmore, 411 Du Page street.

\*No. 118, Dayton, O.—Meets Thursday nights at Delster Post Hall, 25 North Main street. President, C. M. Rike, 128 East Fourth street; recording secretary, Geo. Settell, 20½ W. Fifth street; financial secretary, J. W. Holt, 2 E. Stanley street.

†No. 119, Far Rockaway, L. I.—Financial secretary, A. E. Funnell, 21 Shepherd avenue, Brooklyn, N. Y.

\*No. 120, London, Ont.—Meets third Tuesday in each month at Oriental Hall, Clarence street. President, G. Upshall, 569 William street; recording secretary, L. R. Folley, 189 Wellington street; financial secretary, James G. Rushton, 12 Napier street.

†No. 121, Denver, Col.—Meets every Wednesday at Charles Bldg., room 202, Fifteenth and Curtis streets. President, B. A. Reser, 2410 Stout street; recording secretary, S. H. Cleary, 1218 W. Fourteenth avenue; financial secretary, S. H. Phillips, 1627 S. Emerson street.

\*No. 122, Great Falls, Mont.—Meets Monday at Phelps Building, corner Third street and Central avenue. President, F. D. Warde, Box 385; recording secretary, A. N. Thomas, Box 385; financial secretary, E. W. Frost, Box 385.

\*No. 123, Wilmington, N. C.—Meets every Wednesday night at First National Bank Building, cor. Front and Princess streets. President, James Sutton, general delivery, Wilmington; recording secretary, E. C. Yarbrough, care So. Bell Tel. Co., Wilmington; financial secretary, E. C. Yarbrough.

\*No. 124, Galveston, Tex.—Meets second and fourth Fridays at Cooks' and Walters' Hall, 307½ Tremont street. President, Jos. Cohen, 18 Post Office street; recording secretary, Ed. F. Parks, Atlanta Hotel; financial secretary, Louis Tschumy, 1305 Post Office street.

\*No. 125, Portland, Ore.—Meets every Wednesday at Painters' Hall, No. 234½ Morrison street. President, Wm. Morris, 68 Seventh street; recording secretary, C. F. Canfield, 76 W. Park street; financial secretary, W. T. Patton, 320 E. Stark street.

\*No. 126, Little Rock, Ark.—Meets first and third Tuesday, at Labor Temple, Second and Main streets. President, Al. W. Kingswin, 1222 Main street; recording secretary, W. H. Halliburton, Jr., 1419 Park avenue; financial secretary, E. T. Reynolds, 1422 Battery street.

†No. 127, New Rochelle, N. Y.—Meets second and last Friday in each month at 18 Lawton street. President, R. K. Johnson, 18 Lawton street, New Rochelle, N. Y.; recording secretary, E. P. Byrnes, Larchmont, N. Y.; financial secretary, H. B. Miller, 47 Guilon Place, New Rochelle, N. Y.

\*No. 128, Alton, Ill.—Meets every first and third Friday at Squire Nathan's Law office, Second and Market streets. President, Curtis Hayes, 1240 Narrow street; recording secretary, Cy. Perkins, 618 State street; financial secretary, H. Paul Jewett, Third and Market streets.

\*No. 129, Nashville, Tenn.—Meets every Saturday night at Labor Advocate Hall. President, C. Snider, 301 Church street; recording secretary, D. R. Johnson, 301 Church street.

†No. 130, New Orleans, La.—Meets every Thursday at Carpenter's Union hall, 423 St. Charles street. President, Wm. Fisher, 315 Third street; recording secretary, E. G. Cunningham, 1713 La. avenue; financial secretary, A. Warner, 1025 Gen. Taylor street.

†No. 131, Traverse City, Mich.—Meets second and fourth Tuesdays in month in Central Labor Hall, corner Union and State streets. President, I. L. Cook, Traverse City, Mich.; recording secretary, H. E. Maillat, City Tel. Co., Traverse City, Mich.; financial secretary, Frank Alvord, 314 S. Division street, Traverse City, Mich.

†No. 132, South Bend, Ind.—Meets every two weeks on Monday evenings at Central Labor Hall, South Michigan street. President, Geo. N. Bams, 336 N. Main street; recording secretary, Wm. F. Qualls, Home Tel. Co.; financial secretary, N. J. Shoemaker, P. O. Box 803.

†No. 133, Detroit, Mich.—Meets every Wednesday night at Johnston's Hall, 84 Munroe avenue.

President, F. W. Raymond, 550 Baker street; recording secretary, Stanley C. Wilson, 122 W. Milwaukee avenue; financial secretary, W. F. Tewksbury, 274 Porter street.

†No. 134, Chicago, Ill.—Meets every Thursday night at 196 East Washington street. President, Chas. L. White, 934 Monticello avenue; recording secretary, George O. Johnson, 196 Washington street; financial secretary, J. B. Wilson, 196 Washington street.

\*No. 135, La Crosse, Wis.—Meets every second and fourth Fridays of each month at Bartles Hall, Jay street, bet. Fourth and Fifth. President, B. A. Emerton, 333 North Ninth street; recording secretary, C. A. Dittman, 315 N. Tenth street; financial secretary, Charles H. Yates, 532 North Eighth street.

\*No. 136, Birmingham, Ala.—Meets first and third Fridays at Labor Temple, Twenty-first street. President, F. C. Powell, 3615 avenue C; recording secretary, R. Pyle, 618 South Thirty-fourth street; financial secretary, F. S. Williams, 600 John street.

†No. 137, Albany, N. Y.—Meets second and last Tuesdays of month at Hudson avenue and Broadway. President, Benj. B. Smith, 319 Clinton avenue; recording secretary, Jas. H. Crook, 178 Livingston avenue; financial secretary, G. D. Mormum, 238 N. Pearl street.

\*No. 138, Fort Wayne, Ind.—Meets second and fourth Thursdays at K. of L. Hall, Court street. President, P. B. Merz, 511 Holman street; recording secretary, E. J. Fisher, 127 E. Washington street; financial secretary, D. Mullen, 200 N. Barr street.

\*No. 139, Elmira, N. Y.—Meets second and fourth Sundays at Federation of Labor Hall, 332 Carroll street. President, Benj. R. Phillips, 818 E. Second street; recording secretary, John Marvin, 609 East Church street; financial secretary, J. K. Packard, 372 West Fifth street.

\*No. 140, Schenectady, N. Y.—Meets first and third Wednesdays at Carpenter's Hall, State street. President, John H. Reed, 489 S. Center street; recording secretary, F. G. Lanfair, 119 Clinton street; financial secretary, J. J. Dowling, corner Clinton ave. and Northern Boulevard, Albany, N. Y.

†No. 141, Wheeling, W. Va.—Meets every Friday night at Peabody Building, Room 207, Market street, between Eleventh and Twelfth streets. President, Eugene Hagen, 804 Market street; recording secretary, Ross Miller, 71 Sixteenth street; financial secretary, Earle C. Bell, 167 Fourteenth street.

†No. 142, Wheeling, W. Va.—Meets every Wednesday at I. B. E. W. Hall, Room 207 Peabody Building, Market street. President, J. W. Bradfield, Martins Ferry, Ohio; recording secretary, Geo. Wey, 189 Fifteenth street; financial secretary, W. A. Kent, 1412 Market street.

\*No. 143, Ashtabula, O.—Meets second and fourth Mondays, at C. L. U. Hall, Newbury Block, corner Main and Center streets. President, S. D. Eckler, 15 Tyler avenue; recording secretary, C. A. Amy, 17 Sycamore street; financial secretary, O. Myers, care Ashtabula Tel. Co.

\*No. 144, Wichita, Kan.—Meets every Thursday night at Red Men's Hall, 400 East Douglas. President, S. C. Pratt, 710 S. Market street; recording secretary, Louis McVay, Ind. Tel. Co.; financial secretary, B. L. Cushman, 600 S. Emporia street.

\*No. 145, Saginaw, Mich.—Meets Wednesday night at Engineer's Hall, 218 Genesee avenue. President, J. Crandall, 1103 S. Warren avenue; recording secretary, F. Smith, 923 Jackson street; financial secretary, B. Gaberial, 809 S. Fourth street.

\*No. 146, Bridgeport, Conn.—Meets Wednesday night at 1106 Main street. President, J. T. Rooney, 16 Housatonic avenue; recording secretary, J. W. Peck, 445 Poplar street; financial secretary, F. J. Quinlan, P. O. Box 635.

\*No. 147, Anderson, Ind.—Meets every Friday night at Bricklayer's Hall, 909 Main street. President, H. C. Minor, care D. & M. Tel. Co.; recording secretary, F. Hess, D. & M. Tel. Co.; financial secretary, O. Kenale, D. & M. Tel. Co.

†No. 148, Washington, D. C.—Meets Saturday night at Royal Hall, corner Seventh and N streets northwest. President, O. E. Lewis, 807 Eighth street northwest; recording secretary, I. H. Ware, 1845 Pennsylvania avenue northwest; financial secretary, M. V. Murphy, 808 Fifth street northeast.

\*No. 149, Aurora, Ill.—Meets second and fourth Tuesdays at Trade's Assembly Hall, on Island. President, Robert Gilmore, 228 S. Broadway; recording secretary, E. A. Wood, 218 Benton street; financial secretary, Ed. Millhouse, 23 North Broadway.

\*No. 150, Bay City, Mich.—Meets second and fourth Tuesdays at A. O. U. W. Hall, corner Center and Adams streets. President, Jas. Hodgins, 1317 Eleventh street; recording secretary, W. D. Parker, Essexville, Bay County, Mich.; financial secretary, Charles Crampton, City Hall, Bay City, Mich.

†No. 151, San Francisco, Cal.—Meets every Tuesday at Machinist's Hall, 1159 Mission near Eighth street. Headquarters, 921 Market street. President, F. P. Noonan, 138½ Castro street; recording secretary, J. P. Connihan, 624 Shotwell street; financial secretary, James C. Kelly, 50 Webster street.

\*No. 152, Ft. Scott, Kan.—Meets first and third Thursdays at Painters' Hall, 201 Market street. President, J. D. Runkle, 520 N. National avenue; recording secretary, J. E. White, 529 N. National avenue; financial secretary, S. P. Armstrong, 110 N. Judson street.

\*No. 153, Marion, Ind.—Meets every Tuesday night at Riley Hall, northwest corner Third and Washington streets. President, Frank J. Smith, care United Tel. Co.; recording secretary, W. S. S. Crawford, care Marion Lt. and Heating Co.; financial secretary, H. C. La Follette, 1141 W. Fourth street.

\*No. 154, Rock Island, Ill.—Meets every Thursday night at Electrical Workers' Hall, S. E. corner 17th street and 8d ave. President, H. J. Jeys, 2815½ 9th avenue; recording secretary, C. S. Wangein, 1928 9th avenue; financial secretary, H. W. Dean, 1018 14½ street.

\*No. 155, Oklahoma City, O. T.—Meets every Wednesday night at Flood Building, Reno and Broadway. President, John Swirzinski, 107 East Reno; recording secretary, C. F. Blocher, 115 South Harvey; financial secretary, J. C. Clark, 1020 West First street.

\*No. 156, Ft. Worth, Tex.—Meets every Wednesday night at B. T. C. Hall, 210 Main street, third floor, Powell Building. President, H. H. Lawry, care Citizens Light and Power Co.; recording secretary, Lee Stephens, 602 West First street; financial secretary, W. P. Anderson, 201 East Third street.

\*No. 157, Elkhart, Ind.—Meets first and third Thursday of every month, Central Labor Hall, corner Main and Franklin streets. President, L. D. Whittig, Prairie street; recording secretary, Fred. Livingston, Box 265; financial secretary, Asa Kintler, R. F. D. No. 1.

\*No. 158, Temple, Tex.—Meets second and fourth Wednesdays at Odd Fellows' Hall, Post Office Building. President, T. J. Hewitt, Box 835; recording secretary, W. W. Clay, 215 North Fifth; financial secretary, H. S. Newland, 506 South Eleventh street.

\*No. 159, Madison, Wis.—Meets second Thursday at Union Hall, State street. President, Wm. Neff, 1816 Dayton street; recording secretary, H. W. Schroeder, 738 Williams street; financial secretary, H. Nelson, 848 W. Doty street.

\*No. 160, Zanesville, O.—Meets first and third Tuesday at 7:30 p. m., at Building Trades Hall, over 208 Main street. President, F. J. Poyner, 5 Bell Flats; recording secretary, John Mangin, Kirk House; financial secretary, A. E. DeLong, Route 8, Zanesville.

\*No. 161, Uniontown, Pa.—Meets first and third Fridays at Trades and Labor Council Hall, Main street. President, J. O. Clark; recording secretary, J. F. Morrow; financial secretary, W. O. Tracy, Wilson ave.

†No. 162, Omaha, Neb.—Meets every Thursday evening, at Labor Temple, Fifteenth and Dodge streets. President, F. L. Witters, 2517 Spencer

street; recording secretary, B. O. Linenberger, Labor Temple; financial secretary, J. B. Placie, Labor Temple.

\*No. 163, Wilkesbarre, Pa.—Meets second and fourth Mondays at Building Trades Council Hall, 31 West Market street. President, J. J. McGlynn, 390 E. South street; recording secretary, Thomas Moore, 88 North Sherman street; financial secretary, D. H. Ebert, 400 Scott street.

†No. 164, Jersey City, N. J.—Meets Monday, Fehren's Hall, 168 Beacon avenue. President, J. A. Brennan, 1304 Washington street; recording secretary, Otto Bauer, 187 Griffith street; financial secretary, Edward F. Kenna, 1119 Washington street, Hoboken N. J.

\*No. 165, Newport News, Va.—Meets every other Tuesday evening at C. L. U. Hall, corner Thirty-second street and Washington avenue. President, J. W. Driver, 1015 Twenty-sixth street; recording secretary, E. C. Kelly, R. F. D. No. 1, Hampton, Va.; financial secretary, R. A. Gentis, 1030 Twenty-eighth st.

\*No. 166, Winnipeg, Manitoba, Can.—Meets second and fourth Thursdays at Trades Hall, corner Market and Main. President, H. Lamberton; recording secretary, J. S. Milne, 647 Elgin ave.; financial secretary, W. Girard, 118 Hallett st.

\*No. 167, Pittsfield, Mass.—Meets first and third Wednesdays at Old England Block, North street. President, Hugh J. Breslin, 233 Linden street; recording secretary, R. C. Robertson, 7 Parker street; financial secretary, Fred. A. Wood, 51 Briggs avenue.

\*No. 168, Parkersburg, W. Va.—Meets Wednesdays at Bricklayers' Hall, Court Square. President, G. T. Henderson, Williamstown, W. Va.; recording secretary, J. Roy Mayhew, 178 Avery street; financial secretary, W. C. Vaughan, 1017 Lynn street.

\*No. 169, Fresno, Cal.—Meets second and fourth Mondays at Edgerly's Hall, corner I and Tulare streets. President, Henry Stewart, 129 Diana street, Fresno; recording secretary, B. M. Collins, 1835 F street, Fresno; financial secretary, Clarke Steger, Box 64, Fresno.

\*No. 170, Mason City, Iowa.—Meets first and third Thursday evenings at Howe's Hall cor. Fourth and Main streets. President, A. H. Ramsey, 216 South Washington street; recording secretary, F. W. Roberts, 214 East Tenth street; financial secretary, J. D. Templin, 771 East State street.

\*No. 171, Ann Arbor, Mich.—Meets first and third Saturdays at Trades Council Hall, South Main street. President, Geo. F. Haggitt, 18 River st., Ypsilanti; recording secretary, Foster Ostrander, Ypsilanti; financial secretary, F. C. Phelps, 114 Felch street.

\*No. 172, Newark, Ohio.—Meets every Friday night at I. B. E. W. Hall, 11½ E. Church street. President, Scott Varnie, 286 Beech street; recording secretary, Sam. C. Alledorf, 81 Ninth street; financial secretary, V. H. Effinger, 56 N. Morris street.

\*No. 173, Ottumwa, Iowa.—Meets second and fourth Wednesdays at Labor Hall, East Second street. President, H. E. McKown, 204 North McLean street; recording secretary, S. W. Speer, Hospital building; financial secretary, E. Trent, 226 North Davis street.

\*No. 174, St. Johns, N. B.—Meets first and third Wednesdays at Berryman's Hall, corner Princess and Charlotte streets. President, D. H. Melvin, 37 High street; recording secretary, Jas. Laisay, 10 Ashmond Place. financial secretary, Oitra H. Tracy, 88 Cliff street.

\*No. 175, Benton Harbor, Mich.—Meets every Wednesday, Robinson Block, 110 Pipestone street. President, C. C. Maddux, Benton Harbor; recording secretary, R. G. Moats, Benton Harbor; financial secretary, R. G. Moats, 126 Summit street.

\*No. 176, Joliet, Ill.—Meets every Wednesday at Labor Hall, Jefferson and Ottawa street. President, Ray Allen, 425 Chicago street; recording secretary, A. J. Scheuber, 219 N. Broadway; financial secretary, Denny Wright, 401 Chicago street.

\*No. 177, Paducah, Ky.—Meets Second and fourth Mondays at Central Labor Hall, corner of



Seventh and Court streets. President, J. Farmer, 427 Clark street; recording secretary, Ed. Juett, care People's Tel. Co.; financial secretary, H. C. Rawling, 427 Clark street.

\*No. 178, Canton, Ohio.—Meets first and third Wednesday at Brown's Hall, 1409 West Tusc street; President, Hugh Williams, 515 E. North street; recording secretary, W. B. Thayer, 1131 W. Third street; financial secretary, H. T. Seymour, 1409 West Tusc street.

\*No. 179, Charleston S. C.—Meets every second and fourth Friday night at Knights of Pythias Hall, King street opposite Marion Square. President, I. R. Ward, So. Bell Tel. and T. Co.; recording secretary, J. K. Wilson, So. Bell and T. Co.; financial secretary, Samuel Webb, 141 Meeting street.

\*No. 180 Vallejo, Cal.—Meets first and third Friday at Labor Council Hall, Sacramento street. President, L. A. Thatcher, 222 Capitol street; recording secretary, R. M. Plunkett, 502 Virginia street; financial secretary, R. M. Plunkett, 502 Virginia street.

\*No. 181, Utica, N. Y.—Meets third Tuesday at Labor Temple, Hotel street, Utica, New York. President, John Greenwood, 82 Roberts street; recording secretary, Herman Wameling, 247 Seymour avenue; financial secretary, Edward T. Fox, 199 Court street.

\*No. 182, Montreal, Can.—Meets every first and third Wednesday at St. Joseph's Hall, St. Elizabeth street. President, Thomas Soucy, 468 Wolfe street; recording secretary, J. D. Lanthier, 517 Mount Royal street; financial secretary, John Chevalier, 8 Neville Place.

\*No. 183, Lexington, Ky.—Meets second and fourth Tuesdays at Van Deven Hall, Main street, east of Broadway. President, M. M. Welch, 182 Walnut street; recording secretary, Leslie Kitchen, corner Cross and Pine streets; financial secretary, J. R. Whitmer, P. O. Box 577, Lexington, Ky.

\*No. 184, Galesburg, Ill.—Meets first and third Wednesdays of every month at Trades Assembly Hall, corner Main and Boone avenue. President, J. H. Shull, 266 Duffield avenue; recording secretary, Roy Squires; financial secretary, John Norwood, 149 E. Brooks street.

\*No. 185, Helena, Mont.—Meets first and third Saturdays at Rooms 26, 27, 28 Atlas Block, No. 7 Main street. President, Frank Avery, P. O. Box 1227; recording secretary, Alex. Jones, P. O. Box 1227; financial secretary, C. H. Coar, P. O. Box, 1227.

\*No. 186, Hartford, Conn.—Meets every Tuesday at Stationary Engineers' Hall, Times Bldg. President, J. Owens, 85 Hawthorne street; recording secretary, E. O. Sperry, 65 Grand street, New Britain; financial secretary, E. O. Sperry, 66 Kensington street, New Britain, Conn.

\*No. 187, Oshkosh, Wis.—Meets every Tuesday night at Stationary Engineers' Hall, cor. State and Otter streets. President, Emil Prong, 16 Carr street; recording secretary, J. R. Mentzell, Ceape street; financial secretary, P. S. Rixby, 140 Pearl street.

\*No. 188, Dallas, Tex.—Meets every Wednesday at Labor Hall, Elmand Scotland Court. President, E. A. White, 182 N. Akard; recording secretary, B. E. Loper, 269 Cochran street; financial secretary, L. A. Burrows, 116 Martin street.

\*No. 189, St. Louis, Mo.—Meets every Friday night at Lightstone's Hall, Eleventh and Franklin avenue. President, Chas. R. Reitz, 4524 St. Ferdinand street; recording secretary, Robert Glannon, 1028 Franklin avenue; financial secretary, John G. Rolwes, 4847 College avenue.

\*No. 190, Newark, N. J.—Meets second and fourth Thursdays at Electrical Workers Hall, 886 Washington street. President, Morris R. Welch, 113 Dickerson street; recording secretary, Wm. Varley, 250 Clifton avenue; financial secretary, Joseph R. Hoch, 364 New street.

\*No. 191, Everett, Wash.—Meets every Thursday night at Labor Temple, 2820 Lombard street. President, Severn Patterson, 3004 Federal street; recording secretary, W. H. Riggs, 3209 Oak ave.; financial secretary, L. V. Harper, P. O. Box 228.

\*No. 192, Memphis, Tenn.—Meets every Tuesday at Union Labor Temple, 355 Second street. Presi-

dent, Geo. A. Hulbert, 148 Adams street; recording secretary, Frank Underwood, 148 Adams street; financial secretary, W. M. Hay, 207 Ross avenue.

\*No. 193, Springfield, Ill.—Meets every Tuesday at I. B. E. W. Hall, 210½ S. Fifth street. President, L. B. Johnson, 528 N. Fifth street; recording secretary, A. Reynick, Clark House; financial secretary, W. E. Oliver, 222 N. Fifth street.

\*No. 194, Shreveport, La.—Meets every Tuesday night at Labor Hall, corner of Texas and Common streets. President, W. A. Holt, 1107 Reynolds street; recording secretary, S. E. Blodgett, Arcade Hotel; financial secretary, R. L. Curtis, 328 Walnut street.

\*No. 195, Marietta, O.—Meets every Thursday at Trades Labor Hall, corner Second and Tynerway streets. President, A. T. Willey, Marietta Tel. Company; recording secretary, Wm. H. Reed, 214½ Fifth street; financial secretary, E. Davis, Box No. 584.

\*No. 196, Rockford, Ill.—Meets first and third Fridays at Electrical Workers Hall, 309½ West State street. President, Clarence Bennett, 414 S. Madison street; recording secretary, Harry J. Miller, 534 Woodlawn ave.; financial secretary, L. C. William-son, 528 W. State street.

\*No. 197, Bloomington, Ill.—Meets every Friday at Electrical Workers' Hall, over 106 West Front street. President, J. J. Eversole, P. O. Box 274; recording secretary, C. J. Winters, P. O. Box 274; financial secretary, W. S. Briscoe, Box 286.

\*No. 198, Dubuque, Iowa.—Meets second and fourth Wednesdays at Facade Building, Room 1. President, F. Chalder, 57 Grand View ave.; recording secretary, Ed A. Peters, care of St. George Hotel; financial secretary, J. N. Krahl, Lock Box 103.

\*No. 199, St. Louis, Mo.—Meets every Tuesday evening, at Electrical Workers' Hall, No. 1028 Franklin avenue. President, T. F. Lappin, 4058 Connecticut street; recording secretary, H. J. Matthews, 3009 Manchester avenue; financial secretary, W. J. Kelley, 2914 Madison street.

\*No. 200, Anaconda, Mont.—Meets first and third Tuesdays, Mattie Block, East Commercial avenue. President, W. Hurst, P. O. Box 483; recording secretary, Jas. O'Mara, P. O. Box 483; financial secretary, J. H. Davis, P. O. Box 483.

\*No. 201, Appleton, Wis.—Meets first and third Tuesday of each month at Master Builders' Hall, corner Edward and Appleton streets. President, J. Tempas, 1024 Sixth street; recording secretary, Wm. F. Kerns, 805 N. Division street; financial secretary, U. J. Deuster, 665 Appleton street.

\*No. 202, Seattle, Wash.—Meets second Tuesday of each month in basement of Hotel Seattle, Occidental avenue and Yesler street. President, R. C. Williams, 508 Fifth avenue; recording secretary, Gus Soderberg, Eighth avenue near Pike street; financial secretary, L. H. Brickley, 1212 East Columbia street.

\*No. 203, Champaign, Ill.—Meets every Tuesday night, at Odd Fellows Building, 7 and 9 Neil street. President, H. G. Eastman, 408 North Elm street; recording secretary, John C. McDonald, 1108 West Clark street, Urbana, Ills.; financial secretary, A. L. Chandler, 109 W. Vine street.

\*No. 204, Springfield, Ohio.—Meets every Monday at Trader's and Labor Hall, Main street and Walnut alley. President, F. C. Rotsel, 112 South Center street; recording secretary, H. S. Copeland, 198 Linden avenue; financial secretary, H. F. Shultis, 326 S. Center street.

\*No. 205, Jackson, Mich.—Meets every Tuesday night at Labor Hall, corner Jackson and West Main streets. President, E. Osborn, 511 North Jackson street; recording secretary, Wm. Lawrence, 318 Greenwood avenue; financial secretary, F. C. Lewis, 410 South Blackstone street.

\*No. 206, Hamilton, Ohio.—Meets every Thursday night at 8 p. m., in K. O. T. M. Hall, corner Third and Court streets. President, Peter Hovis, financial secretary, H. Ed Herrmann, 28 South B street.

\*No. 207, Stockton, Cal.—Meets every Tuesday, at Turner Hall, 110 North Hunter street. President, Frank Ellison, 229 South Sutter



Feb. 1904

street; recording secretary, Wm. E. Lee, 539 South American street; financial secretary, James R. Wagner, 608 West Park street.

\*No. 208, Muscatine, Iowa.—Meets second and fourth Fridays of each month at Trades and Labor Assembly Hall, 105-107 Iowa avenue. President, David P. Patterson, 412 W. Sixth street; recording secretary, J. A. Lawrence, 1617 Mulberry street; financial secretary, W. F. Demorest, 206 East Second street.

\*No. 209, Logansport, Ind.—Meets every Thursday at hall on the corner Broadway and Third streets. President, J. W. Abshire, 1890 Spear street; recording secretary, Nate Costenbolder, 820 Race street; financial secretary, Chas. M. Ray, Rural Route No. 1.

†No. 210, Atlantic City, N. J.—Meets every Wednesday night at Odd Fellows Hall, S. New York avenue. President, William Buckingham, C. 7, Champion Ap.; recording secretary, I. N. Cramer, rear 12 South Ohio ave.; financial secretary, C. H. Towne, 1515 Pacific ave.

†No. 211, Atlantic City, N. J.—Meets every Friday night in G. A. R. Hall, S. New York avenue. President, Harry D. Brown, 1806 Ontario ave.; recording and financial secretary, E. W. McCann, Alcazar.

†No. 212, Cincinnati, O.—Meets every Tuesday evening, at Joseph's Hall, southwest corner of Twelfth and Vine streets. President, Joseph A. Cullen, 952 W. Sixth street; recording secretary, Harry Falquet, 1125 Jackson street; financial secretary, W. B. Kelley, Norwood, O.

\*No. 213, Vancouver, B. C.—Meets second and fourth Thursdays at O'Brien's Hall, corner Hastings and Homer streets. President, Geo. Cowling, 152 Dufferin, E.; recording secretary, S. H. Harrison, 523 Hamilton street; financial secretary, A. E. McCartney, 513 Powell street.

\*No. 214, Olean, N. Y.—Meets every Friday at Fountain Hose House, First street. President, S. D. Harding; recording secretary, E. E. Allen, 607 West State street; financial secretary, T. E. Dellinger, 128 South Twelfth street.

\*No. 215, Hot Springs, Ark.—Meets every Tuesday night, rear of Plateau Hotel, Chapel street. President, Chas. Rowe, Box 374; recording secretary, Dan Quevitteon, General Delivery; financial secretary, S. X. Callahan, Box 165.

\*No. 216, Owensboro, Ky.—Meets every Thursday at Lineman Hall, 315½ Frederick street. President, A. D. Faught, St. Elizabeth street; recording secretary, R. L. Woods, 815 Cherry street; financial secretary, R. L. Wood, 815 Cherry street.

†No. 217, Seattle Wash.—Meets Mondays at Waitresses Hall, 1420 Second avenue. President, H. A. Patton, 3815 Ashwood avenue; recording secretary, Daniel Buck, 1418 Sixth avenue, financial secretary, E. A. Clarke, 132 Warren avenue.

\*No. 218, Sharon, Pa.—Meets every second Monday at Leslie Hall, Chestnut street. President, S. Tollman, Sharpsville, Pa.; recording secretary, Chas. Ault, Rankin House, Sharon, Pa.; financial secretary, H. W. Rice, P. O. Box 80, Sharon, Pa.

\*No. 219, Sullivan, Ind.—Meets first and third Tuesday night at Electric Plant Building. President, S. M. Riggs; recording secretary, J. E. Stanfield, Sullivan, Ind.; financial secretary, N. S. Worley.

†No. 220, Rochester, N. Y.—Meets first and third Tuesdays at Durand Building, West Main street. President, P. J. Cotter, 98 Ontario street; recording secretary, C. H. Thompson, 112 Ninth street; financial secretary, E. A. Thompson, 14, 435 Main street east.

†No. 221, Beaumont, Tex.—Meets every Friday at Rabbs Hall, Pearl street between College and Washington. President, O. M. Clark, Beaumont Tele. Co.; recording secretary, Claud Hildebrand, Beaumont Traction Co.; financial secretary, J. H. Cousins, 371 Cypress street.

\*No. 222, Lafayette, Ind.—Meets every Thursday at Brick Masons' Hall, Tenth and Main streets. President, F. E. Williams, 413 N. Fifth street; recording secretary, E. S. Klinker, 1615 Tippecanoe street; financial secretary, Walter Hawkins, 1621 Casson street.

†No. 223, Brockton, Mass.—Meets second and fourth Tuesdays, room 114 Arcade Building, 139 Main street. President, Chas. E. Cole, 416 School street, Whitman; recording secretary, Harry R. Allen, 46 Fuller street; financial secretary, Harry R. Allen, 46 Fuller street.

\*No. 224, Ft. Dodge, Iowa.—Meets second and fourth Tuesdays of each month at Painters Hall, 635½ Central avenue; President, C. J. Hakes; recording secretary, D. W. Lyman; financial secretary, Henry C. Cox, Ft. Dodge, Iowa.

\*No. 225, Topeka, Kans.—Meets every Thursday at Building Trades' Hall, 420 Kansas avenue. President, A. Thomas, P. O. Box 14; recording secretary, W. V. Paschal, P. O. Box 14; financial secretary, D. C. Platt, 502 Chandler street.

†No. 226, Cedar Rapids, Iowa.—Meets first Thursday at Federation Hall, First and Second streets. President, Bert. Eckenberger, Kenwood Park, Iowa; recording secretary, Frank Thomas, Cedar Rapids, Iowa; financial secretary, V. J. Gibson, Kenwood Park, Iowa.

†No. 227, Birmingham, Ala.—Meets every Wednesday night at Fox's Hall, corner Fourth avenue and 19th street. President, R. I. Parham, Southern Bell Tel. Co.; recording secretary, M. D. McRae, Southern Bell Tel. Co.; financial secretary, J. G. Pulliam, Southern Bell Tel. Co.

\*No. 228, Oil City, Pa.—Meets first and third Tuesdays at K. of P. Hall, Center and Elm streets. President, H. Bocel, 19 Grove avenue; recording secretary, W. A. Humes; financial secretary, J. W. Bullock, 212 East South Second street.

†No. 229, Manchester, N. H.—Meets second and fourth Tuesdays at Building Trades Hall, Elm street. President, E. F. Farrell, 31 Armory street; recording secretary, Wm. E. Michie, City Hotel; financial secretary, W. G. Frazer, 53 Pennacook street.

\*No. 230, Victoria, B. C.—Meets every second and fourth Thursday at Labor Hall, corner Johnson and Douglas streets. President, C. C. McKenzie, Douglas street; recording secretary, Frank R. Shapeland, 29 Mears street; financial secretary, E. C. Knight, 200 Douglas street.

†No. 231, Grand Rapids, Mich.—Meets second and fourth Friday evenings of each month at Lincoln Club Rooms, 66 Pearl street. President, A. Montabone; recording secretary, V. L. Faussey, 570 S. East street; financial secretary, H. R. Erdmann, 449 Terrace avenue.

No. 232, Schenectady, N. Y.—Second and Fourth Tuesdays, at Bradt-Yates Building, corner Center and State streets. President, A. Nuttall, 4 Harvard street; recording secretary, C. H. Tinks, 761 E. Liberty street; financial secretary, E. Burnham, 119 Guelderland avenue.

†No. 233, Colorado Springs, Colo.—Meets every Thursday at Building Laborers Hall, over 12 East Huerfano street. President, J. D. Steadman, St. James Hotel; recording secretary, Robt. J. Clark, 114 N. Weber street; financial secretary, F. M. Jahn, 318 N. Wahsatch ave.

†No. 234, Schenectady, N. Y.—Meets first and third Saturdays at Arcade Hall, opp. depot. President, Wm. Armor, 4 Catherine street; recording secretary, S. Fulklestein, 17 and 19 S. Center street; financial secretary, C. A. Sherman, 338 Carrie street.

\*No. 235, Cincinnati, Ohio.—Meets Thursday at Joseph's Hall Twelfth and Vine streets. President, Geo. Park; recording secretary, Ray McGregor, 1135 Vine street; financial secretary, Frank Misner, 524 Culvert street.

\*No. 236, Streator, Ill.—Meets first and third Monday nights at Casey's Hall, 107 East Main street. President, H. M. Griffith, N. Bloomington; recording secretary, Geo. Duffner, 514 W. Bridge street; financial secretary, J. A. Shuler, 309 East Bridge street.

\*No. 237, Lorain, Ohio.—Meets every Thursday in each month at Wagner Hall, south corner Erie and Broadway. President, E. E. Falconer, 231 Gregg avenue; recording secretary, J. F. Smith, 323 Franklin street; financial secretary, A. C. Marsh, 240 8th street, Elyria, Ohio.

\*No. 238, Asheville, N. C.—Meets every Saturday at C. L. U. Hall, 39 Patton avenue. President E. H. Cienenger, Western Union Telegraph

FEB. 1934

Office; recording secretary, J. N. Welch, Western Union Co.; financial secretary, J. H. Graham, 140 Bailey street.

No. 239, Newark, N. J.—Electric fixture fitters, wiremen, and hangers—Meets first and third Thursday at Electrical Workers Hall, 236 Washington street. President, Wm. G. Scheussler, 241 Camden street; recording secretary, Harry Schnarr, 185 North Fourth street; financial secretary, Michael Tanenbaum, 104 Hunterdon st.

No. 240, Philadelphia, Pa.—Telephone.—Meets every Thursday at Morning Star Hall, corner of Ninth and Callowhill streets. President, Joseph Stern, 2840 W. Albert street; recording secretary, John Boone, 2330 Coral street; financial secretary, G. D. Loudenslager, 1209 Jefferson street.

†No. 241, Dayton, Ohio.—Meets every Monday night at United Trades Council Hall, 217 South Jefferson street. President, Thomas E. Fisher, 54 Logan street; recording secretary, Harry Toot; 10 Hawken street; financial secretary, C. Reiter, 911 West Third street.

\*No. 242, Decatur, Ill.—Meets every Friday night at Room 416, Powers' Building, cor. South Water and East Main streets. President, E. O. Baker, Room 16 Syndicate Block; recording secretary, Jno. Simon, 416 Powers Building; financial secretary, A. Frazier, 416 Powers Building.

\*No. 243 Vincennes, Ind.—Meets every Wednesday night at Odd Fellows Building, corner Second and Broadway street. President, Joe Eheart; recording secretary, Lester Johnson, 210 Vallmer street; financial secretary, C. F. Green, 621 North Seventh street.

†No. 244, East Mauch Chunk, Pa.—Meets first and third Sunday, 2 p. m., at Hess' Hall, Center street, between Fourth and Fifth. President, Wren Brown, East Mauch Chunk, Box 293; recording secretary, Anthony Armbruster, East Mauch Chunk, Box 232; financial secretary, J. P. Tracy, East Mauch Chunk, Box 195.

†No. 245, Toledo, O.—Meets every Friday night at Mulcaheys Hall, 714 Monroe street. President, Harry Hunt, 315 Locust street; recording secretary, Jas. Shea, 226 Platte street; financial secretary, Jacob Snyder, 536 South Erie street.

\*No. 246, Steubenville, O.—Meets first and third Wednesday at Druids' Hall, North Fourth street. President, S. M. Richards, 100 South street; recording secretary, J. R. McCoy, 774 Lincoln avenue; financial secretary, E. D. Richards, corner High and South streets.

No. 247, Schenectady, N. Y.—Meets first and third Fridays of each month at Trades Assembly Hall, State street, near Canal bridge. President, Arthur E. Sparks, 20 Cora street; recording secretary, Herbert U. Merrill 110 State street; financial secretary, R. C. Schemmerhorn, 840 Palge street.

\*No. 248, Chillicothe, Ohio.—Meets second and fourth Fridays at Federal Labor Union Hall, 158 East Fifth street. President, E. O. Jackson, 157 West Wotter street; recording secretary, Strawder J. Swyers, 39 E. Second street; financial secretary, Strawder J. Swyers, 39 E. Second street.

\*No. 249, St. Catharines, Ontario.—Meets second and fourth Tuesday, each month, at Trades and Labor Hall, St. Paul street. President, J. W. Johnson, St. Catharines, Ontario; recording secretary, J. Charles Clifford, St. Catharines, Ontario; financial secretary, Joseph Lappin, St. Catharines, Ont.

\*No. 250 San Jose, Cal.—Meets every Tuesday in Building Trades Council Hall, First and Post streets. President, R. Kamp, First and San Fernando streets; recording secretary, Nick Cooper, 397 West San Carlos street; financial secretary, J. W. Hilton, 26 Sanborne avenue.

\*No. 251, Pine Bluff, Ark.—Meets first and third Wednesdays at Carpenters Hall, 112½ W. Banague streets. President, B. R. Brown, P. O. Box 248; recording secretary, Vernon Mullen, P. O. Box 248; financial secretary, J. W. Johnson, P. O. Box 248.

\*No. 252, Schenectady, N. Y.—Meets third Thursday each month at Ellis' Building, State street, next canal bridge. President, Charles Hefferman, 306 Jay street, continued; recording secre-

tary, Samuel McKinney, 937 Albany street; financial secretary, C. A. Bates, Box 656.

\*No. 253, Cedar Rapids, Iowa.—Meets first and third Thursdays, Federation Hall, corner First avenue and Second street. President, E. C. Gleason, 442 Fourth ave. W.; recording secretary, R. E. Gainer, general delivery, Cedar Rapids; financial secretary, C. A. Eisentraut, Iowa Tel. Co.

No. 254, Schenectady, N. Y.—Switch-board Makers.—Meets second and fourth Tuesdays at Machinists Hall, State and Jay streets. President, A. M. Franchols, 258 Broadway; recording secretary, D. Murphy, Hallet street; financial secretary, Jno. H. Cornick, 808 Grant avenue.

\*No. 255, Ashland, Wis.—Meets every Saturday evening Longshoresmen's Hall, corner Ellis avenue and Front street. President, W. M. Hosack, Tremont Hotel; recording secretary, Chas. Branzell, 1112 Sixth street, West; financial secretary, O. Scott Tomkins, 220 Seventh avenue, West.

\*No. 256, Charleston, W. Va.—Financial secretary, B. F. Weaver, 403 Kanawha st., Charleston.

\*No. 257, Herkimer, N. Y.—Meets first and third Friday of each month at Trades Assembly Hall North Main street. President, Martin Manion, North Washington street; recording secretary, Chas. Folts, 311 Eastern avenue; financial secretary, H. Vilhauer, 223 Perry street.

†No. 258, Providence, R. I.—Meets every Friday night at Hanley Building, 63 Washington street. President, John V. Bowers, 53 Capron street, Providence, R. I.; recording secretary, Martin B. Hunt, 33 West Friendship street, Providence, R. I.; financial secretary, John W. Fisher, 169 Bartlett avenue, Edgewood, R. I.

\*No. 259, Salem, Mass.—Meets every Tuesday evening at I. O. O. F. Hall, Washington street. President, W. B. Jackson, 6 Bay street, Beverly; recording secretary, C. R. Hale, 403 Summer street, Lynn; financial secretary, F. A. Coker, 41 March street, Salem.

\*No. 260, Fort Wayne, Ind.—Meets Thursday night in Bank Block, Court street, opp. Court House. President, John T. Somers, 632 Hendricks street; recording secretary, Edward P. Schrantz, 325 Melita street; financial secretary, Leroy Zellers, 1420 Swenney ave.

†No. 261 Saratoga Springs, N. Y.—First and third Wednesday, Phythian Hall, 464½ Broadway. President, Chas. A. Drulette; recording secretary, Leonard Ager, 11 Maple avenue; financial secretary, Wm. H. Owen, 42½ Caroline street.

\*No. 262, Pullman, Ill.—Meets second and fourth Mondays at K. of P. Hall, Arcade Building, 111 Place. President, S. H. Dawney, 6525 Ellis avenue, Chicago; recording secretary, J. A. Larsen, 8028 Coles avenue, South Chicago; financial secretary, M. J. Coleman, 5630 Wabash avenue, Chicago.

\*No. 263, Shamokin, Pa.—Meets Thursday evening at 7.30, Room 7, Sells Zimmerman Building, Independence street. President, Harry T. Morgan, corner Pine and Diamond streets; recording secretary, Rosser Samuels, 118 Poplar street; financial secretary, Ed. Roth, 248 South Wood street.

†No. 264, Pittsfield, Mass.—Meets second and fourth Friday of every month at Bartenders Hall, England Block. President, S. W. Monkes, 124 Columbia avenue; recording secretary, M. C. Bly; financial secretary, C. C. Rowley, 240 Tyler street.

\*No. 265, Lincoln, Neb.—Meets every Monday at A. O. U. W. Hall, 132 South Tenth street. President, Mark T. Caster, 2181 S street; recording secretary, John Sherman, 425 South Fourteenth street; financial secretary, George W. Neally, 428 South Thirteenth street.

\*No. 266, Sedalia, Mo.—Meets every Thursday at Glass Hall, corner Third and Lamine streets. President, Milo J. Spahr, 312 W. Eleventh street; recording secretary, O. L. Gosnell, care of Missouri and Kansas Telephone Company; financial secretary, L. Elseman, 705 East Fifteenth streets.

†No. 267, Schenectady, N. Y.—Meets first and third Saturday of each month at K. of C. Hall, over Gazette office. President, B. A. Cawley,

77 Second avenue; recording secretary, J. W. Andry, 534 Mumford street; financial secretary, J. G. Baringer, P. O. Box 184, Scotia, N. Y.

\*No. 268, Newport, R. I.—First and third Fridays, at Central Labor Hall, Thames street. President, C. W. Holm, 14 Bliss Road; recording secretary, W. H. Mitchell, Dally Cottage, Dixon street; financial secretary, F. A. Bloom, 1 Har. 1130n avenue.

\*No. 269, Princeton, Ind.—Meets first and fourth Monday night, on second floor of City Building, Broadway and Prince streets. President, Charles Stevens, Telephone office; recording secretary, Lewis S. Kell, 211 South Seminary street; financial secretary, L. S. Kell, 109 North Prince street.

\*No. 270, New York, N. Y.—Financial secretary, I. C. Grant, 33 Broadhurst avenue.

\*No. 271, Altoona, Pa.—First and third Monday, each month, Carpenter's Hall, Thirteenth street and Eleventh avenue. President, Chas. Downs; financial secretary, L. M. McPherson, 902 Chest. avenue; recording secretary, F. T. Kleffman, 910 Lexington avenue.

\*No. 272, Sherman, Texas.—Meets first and third Tuesdays, at Union Hall, southwest corner square. President, Frank H. Wright, care of Grayson Tel. Co.; recording secretary, W. L. Porter, care of S. W. Tel. Co.; financial secretary, E. F. Jerger, care of Grayson Tel. Co.

\*No. 273, Clinton, Iowa.—Meets second and fourth Wednesdays, at Labor Temple, Fifth avenue. President, J. J. Davis, 202 South Second street; recording secretary, O. A. Prest, 425 Dewitt street; financial secretary, C. C. Mathiesen, 629 Stockholm street.

\*No. 274, Marinette, Wis.—Meets second and fourth Thursday at Trades Council Hall, Main street. President, Edwin A. Golden, Wells street; recording secretary, A. LaChance, 912 Elizabeth avenue; financial secretary, F. E. McWayne, 1838 Stephenson street.

\*No. 275, Muskegon, Mich.—Meets first and third Thursday at Trades and Labor Hall, Western avenue. President, Edward Plunkett, 25 Sumner street; recording secretary, W. S. Krebs, 54 Western avenue; financial secretary, C. B. Morey, 32 Miller avenue.

\*No. 276, West Superior, Wis.—Meets first and third Tuesdays, at Union Hall, Hammond Block. President, W. W. Kielly, 916 Baxter avenue; recording secretary, J. R. Tillotson, 1620 Oaks avenue; financial secretary, P. C. Miller, 1901 Butler avenue.

\*No. 277, Kingston, N. Y.—Meets first and third Thursday evenings at Recorder's Room, City Hall, Reilly street and Broadway. President, H. H. Buckbee, Lucas avenue; recording secretary, Roswell Coles, 78 Maiden Lane; financial secretary, H. Rumsey, 100 Downs street.

\*No. 278, Rock Island, Ill.—Meets first and third Friday of each month at Turner Hall, Third avenue, between Fifteenth and Sixteenth streets, Rock Island, Ill. President, George Briggs, 2005 Rock Island street, Davenport, Iowa; recording secretary, Harry Keys, 1801 Fourth avenue, Rock Island, Ill; financial secretary, Jay C. Mead, 655 East Sixth street, Davenport, Iowa.

\*No. 279, Chicago, Ill.—(Machine repairers, dynamo and switchboard tenders.)—Meets every Monday evening at 196 East Washington street. President, S. Bennett 1587 West Twelfth street; recording secretary, S. A. Hoemann, 44 Win drop Place; financial secretary, Jas. A. Pepper, 178 Dearborn avenue.

\*No. 280, Hammond, Ind.—Meets first and third Friday at K. of P. Hall, 247 State street. President, Geo. Larson, Sibley street; recording secretary, S. J. Carpenter, 271 Michigan avenue; financial secretary, Harry Hill, 430 Indiana ave.

\*No. 281, New Orleans, La.—Meets first Friday in each month at McMahon's Hall, Dryades street, near Calliope. President, Chas. Kister, 2719 First street; recording secretary, P. Radlet, 1510 N. Robinson street; financial secretary, Geo. Lorrick, 6115 Laurel street.

\*No. 282, Chicago, Ill.—President, P. Sullivan; 3733 Wallace street; recording secretary, E. Kelly, 5018 Aberdeen street; financial secretary, A. Fawcett, 6638 Halsted street.

\*No. 283 San Francisco, Cal.—Meets every Tuesday, at Alcazar Building, 120 O'Farrell street. President, H. Wolfe, 333 Minna street; recording secretary, C. H. Hanson, 108½ Fell street; financial secretary, William Coyle, 1726 Twelfth ave., south.

\*No. 284 Rochester, N. Y.—(Station men.)—Meets second and fourth Thursdays of each month, Snelder's Hall, 14 North Water street. President, George M. Lampman, 72 Glasgow street; recording secretary, W. J. K. Sutherland, 47 Elm street; financial secretary, James B. Coyle, 65 Davis street.

\*No. 285, Lynn, Mass.—Financial secretary, H. Patten, 29 Hanover street.

\*No. 286, New Albany, Ind.—Meets every Monday night at Cigar Makers' Hall, State and Market street. President, J. B. Firster, 1823 Rear Market; recording secretary, C. L. Biel, 1103 Oak street; financial secretary, J. P. Elliott, 526 Culb avenue.

\*No. 287, Philadelphia, Pa.—Meets every Wednesday evening in hall located at No 237 N. 9th street. President, C. H. Wier, 2311 South Mole street; recording secretary, T. W. Carroll, West Palmyra, N. J.; financial secretary, George F. Shaffer, 818 North Twelfth street.

\*No. 288, Waterloo, Iowa.—Meets first and third Thursday at Central Labor Hall, 215½ E. Fourth street. President, W. J. Braydon, 1202 Bluff street; recording secretary, H. J. Miller, 409 W. Fourth; financial secretary, Brickley, Chas. P. O. Box 764

\*No. 289, Oakland, Cal.—Financial secretary, L. C. Kohler, 1253 Twelfth avenue.

\*No. 290, Danville, Ill.—Meets every Monday night at I. B. E. W. Hall, East Main street. President, J. A. Webster, Central Union Telephone Co.; recording secretary, J. W. Manning, Central Union Telephone Co.; financial secretary, W. E. Crosley, Central Union Telephone Co.

\*No. 291, Boise City, Idaho.—Meets every Friday evening at Labor Hall, Banack street, between Eighth and Ninth streets. President, W. W. Moore, Thirteenth and Eastman streets; recording secretary, James D. McCune, Pacific Hotel; financial secretary, T. H. Martin, P. O. Box 525.

\*No. 292, Minneapolis, Minn.—Meets second and fourth Tuesdays at Union Temple, No. 3. President, S. L. Ackerman, 1600 Fifth avenue north; recording secretary, Wm. G. H. Riach, 103 Washington avenue south; financial secretary, G. W. Lee, 924 Plymouth avenue, North.

\*No. 293, North Adams, Mass.—Meets every second Sunday at 11 a. m., at Sullivan Block, sMain street. President, Fred. W. Pinkham. Holden street; recording secretary, Arthur A. Isbell, 80 Porter street; financial secretary, Edward S. Boylan, 18 School street.

\*No. 294, Muncie, Ind.—Meets every Tuesday night at Union Labor Hall, Room 2, corner Walnut and Main streets. President, Clyde Zeek; recording secretary, Orvil Overcash; financial secretary, Ralph Garst, 405 Wheeling avenue.

\*No. 295, Natchez, Miss.—President, L. T. Moore; financial secretary, C. R. Foreman, 209 South Broadway.

\*No. 296, Poughkeepsie, N. Y.—Meets first and third Monday evening each month, at 405 Main street. President, Jno. McAbee, 9 Cannon street; recording secretary, Fred Wiggan, 35 Market street; financial secretary, Jacob Ostrom, 85 Market street.

\*No. 297, Piqua, Ohio.—Meets second and Fourth Thursdays at Plock's Hall, 114 South Main street. President, J. G. Ballard, Tippecanoe City, Ohio; recording secretary, C. M. Reed, 617 River street, Piqua, Ohio; financial secretary, J. S. Parlett, No. 8 West street, Troy, Ohio.

\*No. 298, San Francisco.—(Street car men.) Meets first and third Mondays at Unity Hall, 20 Eddy street. President, W. B. Haskell, 435 29th street; recording secretary, P. A. Clifford, 3327 17th street; financial secretary, William O. Thomas, 30 Bourbon place.

\*No. 299, Camden, N. J.—Meets every Thursday at Daley's Hall, Northwest corner Seventh and Burch streets. President, William Fullerton, Pavonia, N. J.; recording secretary, Peter

**T. Ward, 619 Cedar street; financial secretary, H. B. Fraser, 800 Kimber street.**

\*No. 300, Auburn, N. Y.—Meets every Thursday, at C. M. B. A. Hall, Franklin street. President, Albert Long, Fulton street; recording secretary, Harry Richter, Hoffman street; financial secretary, Frank B. Cahill, Brunswick Hotel.

\*No. 301, Texarkana, Ark.—Meets every Wednesday at Union Labor Hall, 216 Pine street. President, H. T. Robertson, 220 Elm street; recording secretary, W. Adams, 220 Elm street; financial secretary, J. E. French, 220 Elm street.

†No. 302, Peoria, Ill.—Meets first and third Tuesdays at 218 Main street. President, E. C. Gregg, 918 First avenue; recording secretary, H. C. Lupton, 504 St. James street; financial secretary, L. C. Crawley, 115 Dechman avenue.

\*No. 303, Lincoln, Ill.—Meets first and third Wednesday of each month at Painters' Hall, East Pulaski street. President, F. E. Taylor, 839 Third street; recording secretary, E. S. Kinsell, 817 South Kickapoo street; financial secretary, C. E. Chowning, 302 Delavan street.

†No. 304, New Haven, Conn.—Meets every Tuesday night at Room 11 Masonic Temple Building, 708 Chapel street. President, W. A. Johnson, 774 Whitney avenue; recording secretary, W. M. Dutton, 542 Chapel street; financial secretary, Ch. Schmolke, 88 Franklin street.

\*No. 305, Salt Lake City, Utah.—Meets every Monday at Electrical Workers' Hall, 11 W. First street south. President, Bert Cunningham, Salt Lake, general delivery; recording secretary, R. Baxter, 541 Ninth street east; financial secretary, R. Baxter, 541 Ninth street east.

\*No. 306, Albuquerque, New Mex.—Meets first and third Thursdays, Third and Gold avenue, Carpenter's Hall. President, M. Nash, 216 South Second street; recording secretary, M. N. Sweet, 216 South Second street; financial secretary, E. R. Hotelling, 110 Gold avenue.

\*No. 307, Cumberland, Md.—Meets first and Third Saturday, K. of P. Hall, 39 Baltimore street. President, J. H. Reid, 29 Frederick street; recording secretary, Michael Gil, Tremont Hotel; financial secretary, R. Snyder, 17 Harrison street.

†No. 308, Beaumont, Tex.—Meets every Tuesday night, 284 Pearl street, opposite post office; President, E. T. Simmonds, 915 Forsythe street; recording secretary, L. Cook, 812 Magnolia avenue; financial secretary, W. G. Miller, 284 Pearl street.

†No. 309, East St. Louis, Ill.—Meets every Tuesday at District Council of Carpenters Hall, Third street and Missouri avenue. President, Chas. Bennett, State and Sixteenth streets; recording secretary, C. Arnold, 22 North Main street, E. St. Louis, Ill.; financial secretary, R. Hartske, 2752 Lafayette ave.

\*No. 310, Stamford, Conn.—Meets first Friday of each month, Wm. T. Minor, Post G. A. R. Hall, 48 Park Row. President, Goodrich E. Riskey, 221 Atlantic street; recording secretary, John J. Farrell, Glenbrook, Conn.; financial secretary, Norman R. Wilcox, 109 Stillwater avenue.

\*No. 311, Beloit, Wis.—Meets first and third Wednesday at Trades Council Hall, Bridge and Third streets. President, Chas. Ford, 774 Brooks street; recording secretary, H. E. Churchill, 110 East D street; financial secretary, A. J. Gilbertson, 1039 Prairie avenue.

\*No. 312, Pocatello, Idaho.—Meets first and third Mondays at Eagle Hall, corner of First avenue and Center street. President, H. J. Reynolds; recording secretary, W. E. Mittenberger, P. O. Box 512.

\*No. 313, Wilmington, Del.—Meets every Friday at 206 E. Fourth street, Fourth and French streets. President, Wm. MacKenzie, 809 South Harrison street; recording secretary, George Senior, 318 Tatmall street; financial secretary, Geo. T. Lyon, 422 E. Fifth street.

\*No. 314, Tyler, Texas.—Meets second and fourth Wednesdays at Trades Council Hall, South side square. President, F. E. L. Ivey, care of Bell Telephone Co.; recording secretary, W. B.

Roberts, 501 West Houston street; financial secretary, W. B. Roberts, 501 West Houston street.

†No. 315, Chicago, Ill.—Meets first and third Monday in every month. President, E. Schweiker, 1975 N. Ashland avenue; recording secretary, C. B. Hopkins, 819 North Artesian avenue; financial secretary, J. Liebrich, 3632 LaSalle street.

\*No. 316, Ogden, Utah.—Meets every Saturday, Union Labor Hall, Twenty-fourth, between Washington and Grant street. President, W. R. Jackson, P. O. Box 44; recording secretary, E. F. Bailvir, Box 44; financial secretary, Geo. M. Stoddard, Box 44.

\*No. 317, Ashland, Ky.—Meets Tuesday night at Central Labor Hall, corner Fifteenth and Greenup streets. President, S. Coulgrove; financial secretary, M. M. Argabrite, 115 West Winchester avenue.

†No. 318, Knoxville, Tenn.—Meets first and third Tuesdays of each month, Independent Hall, 718 Gay street. President, J. G. Harrison, Spring street; recording secretary, John McCarroll, Market Square; financial secretary, Jess Waters, 712 Campbell street.

†No. 319, Pittsburg, Pa.—Meets second and fourth Monday of each month at K. of L. Hall, 535 Smithfield street. President, W. A. Kelly, 36 Oakland Square; recording secretary, J. J. Horner, 225 Lothrop street; financial secretary, Urban H. Friedman, 847 Estella street.

\*No. 320, Paris, Tex.—Meets every Thursday night at Roundtree Building, North Main street. President, J. G. Sullivan; recording secretary, W. N. Banta; financial secretary, J. R. Hancock, Vineyard Hotel.

\*No. 321, La Salle, Ill.—Meets first and third Saturdays at Reed & O'Neill's Hall, 845 First street. President, Thomas Heffron, La Salle, Ill.; recording secretary, Noxie Dusch, 227 Bucklin street; financial secretary, Jos. B. Skovare, 328 Second street.

\*No. 322, Kokomo, Ind.—Financial Secretary, 158 East Walnut street, Kokoma, Ind.

\*No. 323, Fairmont, W. Va.—Meets Saturday nights at Musgrave Hall, Monroe street. President, H. S. Upton, general delivery; recording secretary, T. N. Bennet, Fairmont general delivery; financial secretary, George E. Allard, Box 607, Fairmont, W. Va.

\*No. 324, Brazil, Ind.—Meets alternate Tuesday nights at United Mine Workers' Hall, Main and Walnut streets (Opera Block). President, Harry Reed, 12 W. Maple street; recording secretary, Birt Stauts, 203 South Lambert street; financial secretary, L. M. Moore, 403 South Lambert street.

\*No. 325, Binghamton, N. Y.—Meets every Friday, 8 p. m. at C. L. U. Hall, 79 State street. President, F. K. Spencer, 18 New street; recording secretary, R. P. Noble, 18 New street; financial secretary, W. J. Bidwell, 120 Washington St.

\*No. 326, Connellsville, Pa.—Meets second and fourth Mondays at Plumbers' Hall, No 108 North Pittsburg street. President, Alex. Angus, Connellsville; recording secretary, Frank Buttermore, New Haven, Pa.; financial secretary, G. S. McClay, 118 N. Pittsburg street.

\*No. 327, West Palm Beach, Fla.—Meets first and third Mondays at Central Labor Hall, Clematis avenue. President, E. W. J. Parrish; recording secretary, J. E. Chambers; financial secretary, Stephen L. Harman, P. O. Box 451.

\*No. 328, Oswego N. Y.—Meets every second Wednesday evening, Trades and Labor Hall, West 1st between Bridge and Oneida street. President, John Goodwin, 318 Walnut street; recording secretary, J. J. Glynn, 69 East Cayuga street; financial secretary, Frank Gallagher, 79 East Eighth street.

\*No. 329, Shelbyville, Ind.—Meets every Friday night at Union Hall, Public Square. President, W. J. Smith, 143 East Walker street; recording and financial secretary, Alfred C. Lee, Second street.

†No. 330, Kansas City, Mo.—Meets every other Wednesday at Electrical Workers Hall, 1333 Grand ave. President, Henry Hollingbarger, 1710 Grand ave; recording secretary, Earl C. Zoll, 318 East Seventeenth street, financial secretary, G. V. Tudhope, Missouri and Kansas Tel.

\*No. 331, Long Branch, N. J.—Meets first and third Monday each month at Phil Daly's Hose Company's Hall, Second avenue. President, E. J. Dougherty, 174 Union ave.; recording secretary, John A. Brokaw, 31 Washington street; financial secretary, Jno. Coles, Jr., Box 127, Station B, Long Branch, N. J.

\*No. 332, Sault Ste Marie, Mich.—Meets Tuesday night, at La Londe Block, Ashmun streets. President, Dave Howey, 235 Ridge street; recording secretary, R. McClamchey, 508 Spruce street; financial secretary, C. Van Dusen, 809 Young street.

\*No. 333, Emporia, Kans.—Meets every Tuesday night at 323½ Commercial street. President, E. McKinsey, 101 So. West street; recording secretary, W. M. Johnson, 709 Merchant street; financial secretary, W. C. Prince, 210 So. Merchant street.

\*No. 334, Whatcom, Wash.—Financial secretary, G. L. Crews, 1431 Humbolt street.

\*No. 335, Springfield, Mo.—Meets Wednesday, Odd Fellows Hall, 302 Boonville street. President, G. H. Robinson, 604 South street; recording secretary, R. T. Brennan, 433 S. Main street; financial secretary, C. A. Hoag, 953 S. Jefferson street.

\*No. 336, Oskaloosa, Iowa.—Meets first and second Tuesdays, at Engineer's Hall, West High avenue. President, Jos. Paling, Oskaloosa; recording secretary, John Teos, Oskaloosa; financial secretary, G. W. Gordon, 207 E. Third avenue.

\*No. 337, Chicago, Ill.—Meets second and fourth Mondays at Dewey Hall, 70 Adams street. President, W. J. Foley, 240 North Kedzie avenue; recording secretary, H. C. Sharp, 5920 Princeton avenue; financial secretary, A. R. Clark, 6505 Woodlawn avenue.

\*No. 338, Denison, Tex.—Meets every first and third Mondays at Labor Hall, 202½ W. Main street. President, C. D. Sloan, 211½ W. Main street; recording and financial secretary, J. R. W. Pratt, 523 Murray street.

\*No. 339, Sterling, Ill.—Meets first and third Wednesday at Labor Hall, 308 Locust street. President, Geo. Thomas, Sterling, Ill.; recording secretary, John Powers, 105 Twelfth avenue; financial secretary, R. L. Fairbrother, 1011 First avenue, Sterling, Ill.

\*No. 340, Sacramento, Cal.—Meets first and third Mondays at Pythian Castle, corner Ninth and I streets. President, C. W. Beaton, 1620 I street; recording secretary, Geo. H. Curtis, 1318½ Sixteenth street; financial secretary, F. H. Bennett, 614 Sixteenth street.

\*No. 341, Ottawa, Ill.—President, Wm. F. Spore, 119 W. Washington street; recording secretary, P. Lavalley; financial secretary, Wm. H. Shafer, 1125 Post street.

\*No. 342, New Brighton, Pa.—Meets Thursday, E. J. Ryan's Hall, corner Third avenue and Ninth street. President, W. H. Irons, Third street, Beaver, Pa.; recording secretary Geo. J. Wolf, 1709 Fourth avenue, Beaver Falls, Pa.; financial secretary, J. L. Allwine, 654 Case street, Rochester, Pa.

\*No. 343, Norwich, Conn.—Meet second and fourth Wednesday at Carpenters' Hall, Shetucket street. President, R. M. Kittson, Woodmansee avenue; recording secretary, Walter Holden, 150 Main street; financial secretary, W. H. Hall, 87 Cliff street.

\*No. 344, New London, Conn.—Meets first and third Friday at Bacon Block, State street. President, W. H. Vibber, 24 Mountain avenue; recording secretary, C. C. Comstock, 5 Franklin street; financial secretary, John S. Loveless, 11 Berkley avenue.

\*No. 345, Mobile, Ala.—Meets second and fourth Mondays at I. O. O. F. Hall, corner of St. Joseph and St. Michael streets. President, W. O. Segraves, care of Southern Bell T. & T. Company; recording secretary, C. E. Hooks, care of W. U. Tel. Co.; financial secretary, J. L. L. Eastburn, Elmira street, second door east of Charles street.

\*No. 346, Fort Smith, Ark.—Meets first and third Tuesday at K. of P. Hall, over 708 Gar. avenue. President, Nat. Graham, 21 N. Twelfth street; recording secretary E. M. Wright, 819 N. Fifth

street; financial secretary, W. H. McDonald, 719 S. Eleventh and H streets.

\*No. 347, Peru, Ind.—Meets first and third Friday at Teamster's Hall, Petty Block. President, Frank Seamon, 72 E. Fifth street; recording secretary, Elmer Burlingame, 217 E. Fifth street; financial secretary, Wm. Odum, 92 E. Eighth street.

\*No. 348, Greenville, Tex.—Meets second and fourth Thursday at Labor Hall, 278 West Lee street. President, C. A. Duck, 216 N. Stonewall street; recording secretary, W. Brame; financial secretary, C. M. Christopher.

\*No. 349, Bangor, Me.—Meets every Wednesday at Lewis Block, 121 Main street, Room 1, President, B. P. Nickerson, 235 Center street; recording and financial secretary, J. C. Smith, 175 Ohio street.

\*No. 350, Hannibal, Mo.—Meets second and fourth Monday at Bartenders Hall, corner of Main and Broadway. President, Lawson Steadman, 306 North Third street; recording secretary, Geo. M. Jackson, 220 Rock street; financial secretary, Harry James, 416 Church street.

\*No. 351, Meriden, Conn.—Meets first and third Wednesdays at Turners' Hall, Pratt street. President, F. E. Tuttle, Wallingford, Conn.; recording secretary, C. J. Maher, 44 Willow street; financial secretary, R. P. Collins, 40 Benjamin street.

\*No. 352, Lansing, Mich.—Meets second and fourth Tuesday at Labor Hall, Washington avenue, north. President, Bert Craus, Lansing, Mich.; financial secretary, D. B. Kinney, 813 Michigan street, West.

\*No. 353, Toronto, Can.—Meets first and third Mondays, at Occident Hall, cor. Queen and Bathurst streets. President, D. Mathieson, 32 Mansfield avenue; recording secretary, J. Fyfe, 32 Mansfield avenue; financial secretary, Jno. Ferguson, 36 Sheridan avenue.

\*No. 354, Salt Lake City, Utah.—Meets every Wednesday at 7:30 p. m., I. B. E. W. Hall, First, South and Main streets. President, W. H. Meldrum, P. O. Box 213; recording secretary, A. N. Thomas, P. O. Box 213; financial secretary, Robert Burns, P. O. Box 213.

\*No. 355, Pittsburg, Pa.—Meets second and third Thursday at National Bank Building, Wilkinsburg, Pa. President, C. E. Dougherty; recording secretary, W. Waterworth, E. Pittsburg; financial secretary, Geo. M. Smith, P. O. Box, 217, E. Pittsburg.

\*No. 356, Kansas City, Mo.—Meets every Monday, in Electrical Workers' Hall, 1333 Grand avenue. President, Sam H. Hawkins, 1333 Grand avenue; recording secretary, F. J. Schadel, 1333 Grand avenue; financial secretary, J. B. Schriber, 203 West Fifteenth street.

\*No. 357, Pittston, Pa.—Meets first Thursday after the 15th at Advocate Office, Butler Block. President, John Sheridan, 17 High street, Pittston; recording secretary, P. F. Toole, Union street, Pittston; financial secretary, E. L. Rowan, 282 William street, Pittston.

\*No. 358, Perth Amboy, N. J.—Meets first and third Thursdays at Carpenters' Union Hall, Slicker's Building, 138 Smith street. President, V. Christofferson, 137 Fayette street; recording secretary, Geo. Skirm, 161 Washington street; financial secretary, Ambrose Mather, 44 East avenue.

\*No. 359, Iron Mountain, Mich.—Meets first Thursday, Spencer Hall, 122 W. B street. President, Quirin Stephany, 108 E. Ludington street; recording secretary, E. W. Mason, 219 E. A street; financial secretary, Conrad Carlson, 1120 River avenue.

\*No. 360, Sioux Fall, S. D.—Meets second and fourth Wednesday at Labor Hall, Syndicate Block. President, M. G. Lacy; recording secretary, Wm. Waples; financial secretary, Chas. Haight.

\*No. 361, McKeesport, Pa.—President, George Griffith, Charleroi, Pa.; recording secretary, John J. Sullivan, McKeesport, Pa.; financial secretary, H. C. Bamford, McKeesport, Pa.

\*No. 362, Kankakee, Ill.—Meets every Monday at German I. O. O. F. Hall, 204 Court street. President, F. E. Jeffers, Hospital, Illinois;

recording secretary, H. H. Boysen, 162 Dearborn avenue; financial secretary, C. C. Riley, 108 Rosewood avenue.

\*No. 363, Montgomery, Ala.—Recording secretary, Eugene Goolsby, 108 Clethron Ave.

\*No. 364, Guthrie, Okla.—Meets first and third Tuesdays at Armory Hall, 109 West Harrison avenue. President, Art Carpenter; recording secretary, W. F. C. Perry; financial secretary, A. H. Harmon.

\*No. 365, Vicksburg Miss.—Meets first and third Saturdays at K. P. ante room, corner Clay and Washington streets. President, R. B. Zeilka, Walnut street; recording and financial secretary, John E. Ford 205 Bomar avenue.

\*No. 366, Allentown, Pa.—Meets Saturday at Nagle's Hall, Seventh and Turner streets. President, J. S. Hoffman, 1815 Court street; recording secretary, John F. Gaffney, 183 Tilghman street; financial secretary, Chas. Hoffman, 1815 Court street.

\*No. 367.—St. Louis, Mo.—Meets first and third Sundays, 2.20 p. m. President, C. A. Hose, 1927 Florissant avenue, St. Louis, Mo.; recording secretary, C. A. Liles, Madison, Ill.; financial secretary, G. E. Sutter, 4603 Cook avenue.

\*No. 368.—New York, N. Y.—Meets second and fourth Wednesdays, Union Hall, 1591 Second avenue. President, J. J. Strauss, 106 E. 118th street; recording secretary, Jas. S. Wellington, 263 W. 180th street; financial secretary, J. J. McCarty, 302 E. 96th Street.

\*No. 369, Louisville, Ky.—Meets first and third Fridays of each month at Beck's Hall, Jefferson street, between First and Second. President, L. Rosenfield, R. F. D. No. 2, Sta. E.; recording secretary, J. A. Magness, 2231 Brook street; financial secretary, Dave Butterfield, 1767 Wilson avenue.

\*No. 370, Los Angeles, Cal.—Meets every first and third Saturday at Council of Labor Hall, No. 3, 438½ South Spring street. President, C. R. Holmes, 714 Tehama street; recording secretary, C. E. Gough, 634 S. Grand; financial secretary, Hal Hamner, 319 West Avenue Fifty-one.

\*No. 371, Redding, Cal.—Meets first and third Tuesdays at Horn's hall, 516 California street. President, John T. Reed, Golden Eagle Hotel; recording secretary, J. C. Powel, Temple Hotel; financial secretary, D. W. Rathburn, 828 Gold street.

\*No. 372, Boone, Iowa.—Meets first and third Fridays at North Side Union hall, 917 Tenth street. President, H. C. Elliott, 515 Tenth street; recording and financial secretary, A. J. Berl, 1556 Fifth street.

\*No. 373, Onedia, N. Y.—Meets first Monday of every month at Trades Assembly Hall, corner of James and Elm streets. President, Irving B. Hawkins, 40 Seneca street; recording secretary, P. Lamont Barr, Elm street; financial secretary, Henry Gasler, Boston street.

\*No. 374, Escanaba, Mich.—Meets every first and third Friday evenings at Lemmer's Hall, 310 Ludington street. President, Geo. Roemer, 916 Well avenue; recording secretary, Wm. Heiligenthal, 1511 Ayer street; financial secretary, Wm. Heiligenthal, 1511 Ayer street.

\*No. 375, Jefferson City, Mo.—Meets second and fourth Mondays in each month at K. of P. Hall, corner High and Madison streets. President, M. P. Gaddis; recording secretary, W. D. Vandusen; financial secretary, Geo. W. Fleming, 418 McCarty street.

\*No. 376, Chicago, Ill.—Meets second and fourth Tuesday in each month at Electrical Headquarters, 196 Washington street. President, A. J. Mielke, 196 E. Washington street; recording secretary, Jno. Luebke, 196 Washington street; financial secretary, Thos. Queenan, 196 Washington street.

\*No. 377, Norristown, Pa.—President, Wm. S. Miller, 630 Cherry street; financial secretary, E. E. Godschalk, 202 E. Oak street.

\*No. 378, Denver, Colo.—Meets second and fourth Fridays, 8 p. m., Room 218 Charles Block, corner of Fifteenth and Curtis streets. President, P. P. Bennett, 1431 Sixteenth street; recording secretary, S. H. Cleary, 1317 Glenorm street;

financial secretary, A. C. Winsch, 742 South Twelfth street.

\*No. 379, Greensburg, Pa.—Meets first and third Thursday of each month, at Glunts Hall, corner East Pittsburg street and Maple avenue. President, A. R. Mott, Franklin street; recording secretary, M. McLaughlin, 219 N. Main street; financial secretary, H. E. Peters.

\*No. 380, Salt Lake City, Utah.—Station men—Meets every second and fourth Monday at Emporium Building, 11 West First South Street. President, H. P. Burt, 1519 Indiana avenue; recording secretary, T. C. Husbands, P. O. Box 971, financial secretary, T. C. Husbands, P. O. Box 971.

\*No. 381, Chicago, Ill.—Fixture hangers—Meets second and fourth Tuesdays at Koch's Hall, 104 Randolph street. President, C. M. Hall, 185 Indiana street; recording secretary, O. H. Owens, South Harvey, Ill.; financial secretary, O. A. Lawson, 449 Cornelia street.

\*No. 382, Columbia, S. C.—Meets Wednesday night, at Independence Hall, over Independent Engine House, between Main and Assembly streets. President, F. D. Cooper, Southern Bell Tel. Co.; recording secretary, J. W. Blease, Wm. Perry Electrical Co.; financial secretary, W. J. Jones, South Carolina Glass Works.

\*No. 383, Mattoon, Ill.—President; Harry Schock; recording secretary, Ned Malaine; financial secretary, L. Morganstein.

\*No. 384, Sydney, Nova Scotia—Meets every second Wednesday of each month at C. M. B. A. Hall, George street, Sydney, C. B. President, S. C. De Witt, Sydney, N. S.; recording secretary, Oscar L. Boyd, P. O. Box 415; financial secretary, J. P. Gallant, P. O. Box 415.

\*No. 385, Lawrence, Mass.—Meets Friday nights at Music Hall, 304 Common street. President, A. M. Winslow, 125 Farnham street; recording secretary, T. H. Hogarth, 86 Andover street; financial secretary, Chester Kavanah, 51 Walnut street.

\*No. 386, New Iberia, La.—Meets first Friday of each month, corner Main and Corinne streets. President, George Fay; recording secretary, E. R. Chivers; financial secretary, W. A. Broussard.

\*No. 387, Freeport, Ill.—President, C. L. Gulon, 95 Cottonwood street; recording secretary, Chas. King, 63 O'Harra street; financial secretary, J. B. Gaffney, 237 Douglas avenue.

\*No. 388, Palestine, Tex.—President, C. M. Parkhill; recording secretary, D. E. Bostick; financial secretary, J. L. Turner.

\*No. 389, Paterson, N. J.—Meets every first and third Tuesday, in Columbia Hall, 462 Main street. President, F. H. Holmes, Lodi, N. J.; recording secretary, Charles Walton, 57 Twenty-third avenue; financial secretary, Geo. Twigger, 330 Market street.

\*No. 390, Johnstown, Pa.—Meets Thursday at Electrical Workers Hall, 337 Bedford street. President, Robert Fundenberg, 518½ Vine street; recording secretary, H. W. Apel, 531 Franklin street; financial secretary, F. W. Buchanan, 248 Adam street.

\*No. 391, Los Angeles, Cal.—Financial secretary, J. F. Greaves, Johnston Hotel.

\*No. 392, Troy, N. Y.—Meets every Thursday night in Red Men's Hall, First and Congress streets. President, J. W. Lindsey, Lynd House; recording secretary, J. Seymour Scott, 18 Ingalls ave.; financial secretary, Robert Grant, Lynd House.

\*No. 393, Detroit, Mich.—Meets second and fourth Friday, in Johnson's Union Headquarters, corner Monroe avenue and Farrar street. President, George A. Dunkers, 473 Elmwood avenue; recording secretary, Sydney A. Smith, 369 Cass avenue; financial secretary, C. W. Guinness, 505 Trumbull avenue.

\*No. 394, Auburn, N. Y.—Meets second and fourth Mondays in each month at Mantel Hall, Water street. President, Thomas H. Mohan, 1 School street; recording secretary, D. D. Ehle, 60 Washington street; financial secretary, Thos. H. Mohan, 1 School street.

\*No. 395, Kalamazoo, Mich.—Meets first and third Monday of each month, Trades and Labor Hall, South Burdick street. President, Geo. C.



Milham, 722 Stockbridge ave.; recording secretary, Burton A. Whipple, 322 E. Lovell street; financial secretary, Morris W. Doyle, 1110 Clark street.

\*No. 396, Boston, Mass.—Meets first and third Tuesdays, at Seaver Hall, Paine's Mem Building, Appleton street. President, W. W. Emmons, 125 Milk street (basement); recording secretary, D. R. McGregor, 241 Marriot street, Dorchester, Mass.; financial secretary, A. R. Young, 709 Broadway, Chelsea, Mass.

\*No. 397, Quebec, Canada. Meets first and third Monday of each month at Montcalm Hall, Montcalm Market. President, Elzear L. Heureux, 394 St. Vallier street; recording secretary, N. Mathurin, 238 St. Vallier street; financial secretary, A. Bouret, 18 Levis street.

\*No. 398, St. Cloud, Minn.—Meets every second and fourth Saturday, at I. O. U. W. Hall, corner First street and Fifth avenue, south. President, G. Gehrenback, St. Cloud, Minn.; recording secretary, Harry Hamlin, Sauk Rapids, Minn.; financial secretary, F. B. Doten, 618 Sixth avenue, south.

\*No. 399, Portland, Me.—Meets every Tuesday at Farrington Block, Congress street. President, F. E. Sargent, 308 Portland street; recording secretary, Edward Tenney, 22 Paris street; financial secretary, A. G. Moody, 86 Lancaster street.

\*No. 400, Ottawa, Ontario.—Meets second and fourth Wednesdays at Murphy's Hall, Sussex street. President, M. F. Mead, 34 Murray street; recording secretary, C. G. Keyes, 467 Rideau street; financial secretary, A. Seguin, 30 Water street.

\*No. 401, Burlington, Iowa.—Meets every Monday evening at Carpenters Hall, Third and Jefferson street. President, Chas. McGuire, North, ern Hotel; recording secretary, E. W. Bischoff-Sherrill Moore Elec. Co.; financial secretary, Chas. Caster, 624 N. Fourth street.

\*No. 402, Portchester, N. Y.—Meets every first and third Monday nights at 8 each month, at Washington Hall, 115 North Main street. President, Andrew Bell, 26 Haseco avenue; recording secretary, Daniel B. Purdy; P. O. Box 240, Port Chester, N. Y.; financial secretary, J. C. Irving, Greenwich, Conn.

\*No. 403, Meadville, Pa.—Meets every second and fourth Wednesdays at Central Labor Union Hall, Water street and Mead avenue. President, Fred A. Berg, 732 Liberty street; recording secretary, Chas. A. Cummings, Park avenue; financial secretary, A. R. Simpson, Phoenix Hotel.

\*No. 404, Denver, Colo.—(Winders)—Meets every Tuesday at 512 Charles Building. President, W. C. Metzgar, 115 West Bayard street; recording secretary, A. W. Gay, 1245 Clarkson street; financial secretary, Jack H. Cook, Hotel Midland.

\*No. 405, Houghton, Mich.—Meets first and third Thursday of each month at Union Hall, Sheldon street. President, John Crawford, Houghton; recording secretary, W. M. Bates, Houghton; financial secretary, E. J. Porter, Houghton.

\*No. 406, Ardmore, Ind. Ter.—Meets every Friday night at Union Hall, West Main street. President, E. M. Parker, Ardmore, I. T.; recording secretary, Luther Anderson, Box 63; financial secretary, La Mont Byers, P. O. Box 346.

\*No. 407, Marquette, Mich.—Meets every second and fourth Saturday of each month at Siegel's Hall, N. Third streets. President, O. H. Stewart, 339 West Alger street; recording secretary, C. A. Ellstrom, 321 West Bluff street; financial secretary, G. H. Kemper, 511 West Ridge street.

\*No. 408, Missoula, Mont.—Meets every second and fourth Tuesday at Fireman's Hall, West Main street. President, J. B. Ashley, Missoula, Mont.; recording and financial secretary, C. H. Christensen, 305 East Front street.

\*No. 409, Ithaca, N. Y.—Meets first and third Saturday of every month at Central Labor Union Hall, East State street. President, W. W. Harding, South Cayuga street; recording secretary, J. W. Spaulding, 513 Willow avenue; financial secretary, O. Rittenhouse, 505 South Albany street.

\*No. 410, Albany, N. Y.—Meets first and third Mondays at 8 P. M., Laventall Building, Hounds avenue and South Pearl street. President, Geo. E. Gray, 339 Clinton avenue; recording secretary, Carl F. Mull, 461 Clinton avenue; financial secretary, Frank C. Shanno, 130 Second ave.

\*No. 411, Warren, O.—Meets first and third Wednesday nights at Amalgamated Association Hall. President, E. S. Kelley, North Second avenue; recording secretary, George F. Hardy, C. D. and P. Tel., Niles, Ohio; financial secretary, S. F. Messer, North Second avenue.

\*No. 412, Mankato, Minn.—Meets Thursday night of each month at Williams' Hall, corner Front and Hickory streets. President, W. C. Lestico, 327 E. Vine street, Mankato, Minn.; recording secretary, Chas. Brandon, 114 S. Fourth street, Mankato, Minn.; financial secretary, R. A. Anderson, box 140, Mankato, Minn.

\*No. 413, Manila, P. I.—President, Wm. Wirt, Box 547; financial secretary, C. H. Hulbert, Box 547.

\*No. 414, Macon, Ga.—Financial secretary, J. R. Hoffer, 556 Second street.

\*No. 415, Cheyenne, Wyo.—Meets every first and third Mondays, K. P. Hall. President, F. P. Edlind, 216 E. Sixteenth street; recording secretary, H. J. Gallivan; financial secretary, B. M. Vance, box 530.

\*No. 416, St. Joseph, Mo.—Meets every Thursday at Elect Hall, 114½ W. Fifth street. President, W. H. Winters, 507 S. Third street; recording secretary, H. F. Howard, 720 Main street—Main and Louis; financial secretary, J. A. Wells, 113 E. Isabell street.

\*No. 417, Newburgh, N. Y.—Meets every second and fourth Saturday at Labor Hall, Ann street, between Johnson and Liberty. President, John Gilroy Mezger, 1 High street; recording secretary, Raymond Hathaway Williams, 215 First street; financial secretary, Thomas Perrott, 32 Smith street.

\*No. 418, Mt. Vernon, Ind.—Meets second, third and fourth Monday nights at Franks Place, Main street, between Second and Third. President, Roscoe Combs, Mt. Vernon; recording and financial secretary, J. C. Maier, 328 Lower Sixth street.

\*No. 419, Jacksonville, Ill.—Financial secretary, O. Sorrells, Jacksonville.

\*No. 420, Moberly, Mo.—Meets second and fourth Tuesday night of each month at Lincoln G. A. H., Reed street. President, Rieley Patterson, Moberly, Mo., care of Richmond Hotel; recording secretary, E. J. Hayes, 629 Culp street, Moberly, Mo.

\*No. 421, Watertown, N. Y.—President, G. B. Dickerson; financial secretary, Wm. C. Anderson, 1 Arlington street.

\*No. 422, Hackensack, N. J.—Meets second and fourth Tuesdays of each month, Armory Hall, corner of State and Mercer. President, D. T. Evans; recording secretary, Bert M. Pratt, 52 Main street; financial secretary, Walter Kingsley, Kansas street.

\*No. 423, Montreal, P. Q.—Meets First and Third Friday each month, at 39 Third street. President, Wm. McFadden, Soldier's Home; recording secretary, J. W. Daley, 496 Twenty-seventh street; financial secretary, J. V. Field, 459 Sixth avenue.

\*No. 424, Milwaukee, Wis.—Meets every Thursday at 8 p. m., Weingert's Hall, 298 Fourth street. President, Wm. McFadden, Soldier's Home; recording secretary, J. W. Daley, 496 Twenty-seventh street; financial secretary, J. V. Field, 459 Sixth avenue.

\*No. 425, Wilmington, Del.—Meets first, third and fifth Fridays of each month, northeast corner Eighth and Orange streets. President, E. B. Ferrel, 802 West Sixth street; recording secretary, Isaac A. Gray, 1103 Shallcross avenue; financial secretary, R. S. Hertzog, 1112 King street.

\*No. 426, Milwaukee, Wis.—Meets every second and Fourth Fridays of each month at Harmony Hall, corner First avenue and Mineral street. President, Jos Kain, 468 Clinton street; recording secretary, Frank Zimney, 954 Eighth avenue;

Feb 1904

financial secretary, Charles Nauertz, 648 Madison street, rear.

\*No. 427, Springfield, Ill.—Meets first and third Wednesday, at Electrical Workers' Hall, 210½ S. Fifth street. President, J. D. Valentine, 411 W. Canedy street; recording secretary, A. H. Barth, 615 E. Jackson street; financial secretary, R. W. Berry, 918 E. Edwards street.

\*No. 428, Bakersfield, Cal.—Meets every first and third Tuesday of each month at 1808 Chester avenue. President, Wm. H. Murray; recording secretary, C. T. Collins; financial secretary, J. E. Baker.

\*No. 429, Columbus, Ga.—President, John Ralph, Automatic Tel. Company; financial secretary, C. A. Sides, Automatic Tel. Company.

\*No. 430, Racine, Wis.—Meets second and fourth Saturday at 8 p. m., of the month, at Trades Labor Hall, Fourth and Main streets. President, M. J. Young, 265 Main street; recording secretary, B. J. Waitz, 46 Academy street; financial secretary, J. J. O'Brien, Niles Block, Broad street.

\*No. 431, Frederick, Md.—Meets every first and second Saturday in the month at Farmer Hall at West Patrick street. President, H. H. Evans; financial secretary, S. F. Gardner, 187 South Market street.

\*No. 432, Eau Claire, Wis.—Meets second and fourth Tuesdays at Union Hall, corner Barstow and Wisconsin streets. President, George Headwick, 245 Barlow street; recording secretary, Chas. Anger, 948 Madison street; financial secretary, Louis Marsh, 521 Congress street.

\*No. 433, Fremont, Ohio.—Meets second and fourth Tuesday of each month at Germonade's Hall, corner of Park and Napoleon street. President, Ed. E. McCarty, 337 Harrison street, Fremont, Ohio; recording secretary, R. G. Dunfee, 401 Ash street, Fremont, Ohio; financial secretary, Wm. P. Stevens, Fremont, care U. S. Telephone Co.

\*No. 434, Douglas, Ariz.—President, J. H. Stewart; financial secretary, F. C. Farrington-care Douglas Imp. Co.

\*No. 435, Marion, Ohio.—Meets every Saturday at Central Trades Council Hall, South Main street. President, R. C. Owens, Ola street; recording secretary, Sylvester Rowe, 269 North Oak street; financial secretary, Fred Rowe, 269 North Oak street.

\*No. 436, Oneonta, N. Y.—President, Carl L. House, 12 Cherry street; recording secretary M. J. Young; financial secretary, Jno. O'Brien.

\*No. 437, Fall River, Mass.—Financial secretary, H. A. Manchester.

\*No. 438, Greater New York, N. Y. (Street car wiremen)—Meets every Friday, at Odd Fellows Hall, 67 and 69 St. Marks pl., New York. President, John W. Schmidt, 688 Gates avenue, Brooklyn, N. Y.; recording secretary, E. M. Young, 5911 Third avenue, Brooklyn, N. Y.; financial secretary, Julius N. Ehrenberg, 112 East Eighty third street.

\*No. 439, Alliance, Ohio.—Meets second and fourth Wednesday of each month, corner Main and Seneca streets. President John McCaskey, R. F. D. No 2; recording secretary, A. V. Stanley, 218 W. Main street; financial secretary, H. J. Erhardt, cor Union and W. Main street.

\*No. 440, Grand Rapids, Wis.—Meets second and fourth Saturdays at Catholic Foresters Hall, East Side. President, Geo. M. Huntington; recording secretary, C. M. Dougharty; financial secretary, J. H. Noyes.

\*No. 441, Janesville, Wis.—President, James Frosher, Janesville; recording secretary, Ed. Barren, Janesville; financial secretary, James Shuler, Janesville.

\*No. 442, Spartansburg, S. C.—Financial secretary, Fred Schueler, care of So. Bell Tel. Co.

\*No. 443, Key West, Fla.—Meets every first and third Tuesday at Key West Electric Company Plant. President, H. Z. Lee, Key West Electric Company; recording secretary, J. H. Harris, 309 Galveston street; financial secretary, E. E. Larkin, Key West Electric Company.

\*No. 444, Richmond, Ind.—Financial secretary, J. L. McNeill, 46 South Eleventh street.

\*No. 445, Battle Creek, Mich.—Financial secretary, E. Wideman, care Mich. Tel. Co.

\*No. 446, Columbus, Ohio.—Meets every Friday night at 7.36 p. m., at Lazarus' Block, High and Town streets. President, C. L. Sprague, Fourth and Oakland avenues; recording secretary, Harry Kerus, 167½ So. High street, room 15; financial secretary, Frank Naus, 51½ W. State street.

\*No. 447, Port Huron, Mich.—Meets every Tuesday evening at 8 o'clock in Central Labor Hall, 5-9 Water street. President, Wm. J. McManus, 1504 Ninth street; recording secretary, Pierce Welsh, 818 Seventh street; financial secretary, P. Lew. Wittiff, 825 Griswold street.

\*No. 448, Annapolis, Md.—Meets every Thursday at 30 West street. President, Chas. B. Orrell, 30 West street; recording secretary, Wm. G. Fothergill, Eastport, Md; financial secretary, Ed. T. Beavin, 18 Cathedral street.

\*No. 449, Augusta, Ga.—Financial Secretary, J. L. Reed, care of Strowger Exchange.

\*No. 450, Trinidad, Colo.—Meets first and third Thursday, Poltry Block, Commercial street. President, E. T. Drout, Tel. Co.; recording secretary, Joe. Gayway, First street; financial secretary, John Nigro, general delivery.

\*No. 451, New Decatur, Ala.—Financial secretary, John F. Knowles.

\*No. 452, Pensacola, Fla.—Recording secretary, W. E. Pearl; financial secretary, W. C. Walker, 518 Sixth avenue.

\*No. 453, Sumter, S. C.—Financial secretary, Jas. Larlsey, 108 South Harvin street.

\*No. 454, Charlotte, N. C.—President, J. R. Griffith; recording secretary, W. W. Norwood; financial secretary, S. J. Alexander, 508 Poplar street.

\*No. 455, Shawnee, O. T.—Meets second and fourth Mondays each month. President, W. S. Campbell, 304 North Tucker street; recording secretary, J. E. Fitzgerald, 314 North Broadway; financial secretary, Henry Brown, P. O. Box 421.

\*No. 456, Oklahoma City, O. T.—Recording secretary, W. C. Welch, 608 Girard avenue.

\*No. 457, Kenoska, Wis.

\*No. 458, Aberdeen, Wash.—President, F. E. Ratlie; recording secretary, T. F. Bradshaw.

\*No. 459, Cortland, N. Y.—President, John J. McMahon; recording secretary, W. J. Hartnett, Cortland Home Tel. Company.

\*No. 460, Chickasha, Ind. T.—President, L. H. Williams, P. O. Box 764; recording secretary, V. L. Perry.

## DISTRICT COUNCILS.

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<b>Alabama.</b> Birmingham...136 Birmingham...227 Mobile.....345 Montgomery...363 New Decatur...451 <b>Arizona.</b> Douglass.....434 <b>Arkansas.</b> Fort Smith...346 Hot Springs...215 Little Rock...126 Pine Bluff...251 Texarkana...301 <b>California.</b> Bakersfield...428 Fresno.....169 Los Angeles...61 Los Angeles...116 Los Angeles...370 Los Angeles...391 Oakland.....289 Redding.....371 Sacramento...86 Sacramento...340 San Francisco...6 San Francisco...151 San Francisco...288 San Francisco...298 San Jose.....250 Stockton.....207 Vallejo.....180 <b>Colorado.</b> Colo. Springs...118 Colo. Springs...233 Cripple Creek...70 Denver.....68 Denver.....121 Denver.....378 Denver.....404 Pueblo.....12 Trinidad.....450 <b>Connecticut.</b> Bridgeport...146 Hartford.....87 Hartford.....186 Meriden.....351 New London...344 New Haven...90 New Haven...304 Norwich.....343 Stamford.....310 Waterbury...11 <b>Delaware.</b> Wilmington...425 Wilmington...313 <b>District of Colum- bia.</b> Washington...26 Washington...148 <b>Florida.</b> Jacksonville...100 Key West....443 Pensacola....452 Tampa.....108 West Palm Beach.....327 <b>Georgia.</b> Atlanta.....84 Augusta.....449 Columbus....429 Macon.....414 Savannah...88 <b>Hawaii.</b> Honolulu....111 <b>Idaho.</b> Boise City...219 Pocatello....312	<b>Indiana.</b> Anderson....147 Brazil.....324 Elkhart.....157 Evansville...16 Fort Wayne...138 Fort Wayne...260 Hammond....280 Indianapolis...10 Kokomo.....322 Lafayette....222 Logansport...209 Marion.....153 Mt. Vernon...418 Muncie.....294 New Albany...286 Peru.....347 Princeton....269 Richmond....444 Shelbyville...329 South Bend...132 Sullivan.....219 Terre Haute...25 Vincennes...243 <b>Indian Territory.</b> Ardmore.....406 Chickasha....460 <b>Illinois.</b> Alton.....123 Aurora.....149 Belleville....50 Bloomington...197 Champaign...203 Chicago.....9 Chicago.....49 Chicago.....78 Chicago.....134 Chicago.....279 Chicago.....282 Chicago.....315 Chicago.....337 Chicago.....376 Chicago.....381 Danville....290 Decatur.....242 East St. Louis...309 Elgin.....117 Freeport.....387 Galesburg....184 Jacksonville...419 Joliet.....176 Kankakee....362 Kewanee.....94 La Salle....321 Lincoln.....303 Mattoon.....383 Ottawa.....341 Peoria.....34 Peoria.....302 Pullman.....262 Quincy.....67 Rockford....196 Rock Island...154 Rock Island...278 Springfield...193 Springfield...427 Sterling.....339 Streator.....236 <b>Iowa.</b> Boone.....372 Burlington...401 Cedar Rapids...226 Cedar Rapids...253 Clinton.....273 Davenport...109 Des Moines...55 Dubuque.....198 Fort Dodge...224 Mason City...170 Muscatine....208 Oskaloosa....336 Ottumwa.....173 Sioux City....47 Waterloo....288	<b>Kansas.</b> Atchison....19 Emporia.....333 Fort Scott....152 Pittsburg....107 Topeka.....225 Wichita.....144 <b>Kentucky.</b> Ashland.....317 Henderson....82 Lexington....183 Louisville...112 Louisville...369 Owensboro...216 Paducah.....177 <b>Louisiana.</b> New Iberia...386 New Orleans...4 New Orleans...130 New Orleans...281 Shreveport...194 <b>Maine.</b> Bangor.....349 Portland.....399 <b>Maryland.</b> Annapolis....448 Baltimore....27 Baltimore....28 Cumberland...307 Frederick....431 <b>Massachusetts.</b> Boston.....103 Boston.....104 Boston.....396 Brockton....223 Lawrence....385 Lowell.....46 Lynn.....285 North Adams...293 Pittsfield....167 Pittsfield....264 Salem.....259 Springfield...7 Worcester...96 <b>Michigan.</b> Ann Arbor...171 Battle Creek...445 Bay City.....150 Benton Harbor...175 Detroit.....17 Detroit.....183 Detroit.....393 Escanaba....374 Fall River...487 Grand Rapids...75 Grand Rapids...231 Houghton....405 Iron Mount'n...359 Jackson.....205 Kalamazoo....395 Lansing.....352 Marquette....407 Muskegon....275 Port Huron...447 Saginaw.....145 Sault Ste Marie...352 Traverse City...131 <b>Minnesota.</b> Duluth.....81 Mankato.....412 Minneapolis...24 Minneapolis...292 St. Cloud....398 St. Paul.....23 Winona.....74 <b>Mississippi.</b> Natchez.....295 Vicksburg....365	<b>Missouri.</b> Hannibal....350 Jefferson City...375 Joplin.....95 Kansas City...18 Kansas City...330 Kansas City...356 Moberly.....420 St. Joseph....40 St. Joseph....416 St. Louis.....1 St. Louis.....2 St. Louis.....59 St. Louis.....189 St. Louis.....199 St. Louis.....367 Sedalia.....266 Springfield...335 <b>Montana.</b> Anaconda....200 Butte.....65 Great Falls...122 Helena.....185 Missoula.....408 <b>Mexico.</b> Monclova Coa- hulla.....51 <b>Nebraska.</b> Lincoln.....265 Omaha.....22 Omaha.....162 <b>New Hampshire.</b> Manchester...229 <b>New Jersey.</b> Atlantic City...210 Atlantic City...211 Camden.....299 Hackensack...422 Jersey City...15 Jersey City...164 Long Branch...331 Newark.....52 Newark.....87 Newark.....190 Newark.....239 Paterson.....102 Paterson.....389 Perth Amboy...358 Trenton.....29 <b>New Mexico.</b> Albuquerque...306 <b>New York.</b> Albany.....137 Albany.....410 Auburn.....300 Auburn.....394 Binghamton...825 Brooklyn....110 Buffalo.....41 Buffalo.....45 Cortland....459 Elmira.....139 Herkimer....257 Hornellsville...92 Ithaca.....409 Jamestown...106 Kingston....277 Middletown...101 Newburgh...417 New Rochelle...127 New York....3 New York....20 New York....270 New York....368 New York....438 Niagara Falls...68 Olean.....214 Oneida.....373 Oneonta.....436 Oswego.....323 Portchester...402 Poughkeepsie...286	Rochester....44 Rochester....86 Rochester....220 Rochester....284 Saratoga Springs....261 Schenectady...140 Schenectady...232 Schenectady...234 Schenectady...247 Schenectady...232 Schenectady...254 Schenectady...267 Syracuse.....43 Syracuse.....79 Troy.....392 Utica.....42 Utica.....181 Watertown....421 <b>North Carolina.</b> Asheville....238 Charlotte....454 Wilmington...133 <b>Ohio.</b> Akron.....89 Alliance.....439 Ashtabula....143 Canton.....178 Chillicothe...248 Cincinnati...30 Cincinnati...212 Cincinnati...235 Cleveland....38 Cleveland....39 Columbus....54 Columbus....446 Dayton.....118 Dayton.....241 East Liver- pool.....93 Fremont.....433 Hamilton....206 Lima.....32 Lorain.....237 Marietta....196 Marion.....485 Massillon....35 Mt. Vernon...97 Newark.....172 Piqua.....297 Sandusky....110 Springfield...204 Steubenville...246 Toledo.....8 Toledo.....245 Warren.....411 Youngstown...62 Youngstown...64 Zanesville...160 <b>Oklahoma.</b> Guthrie.....364 Oklahoma City.....155 Shawnee.....454 <b>Oregon.</b> Portland.....125 <b>Pennsylvania.</b> Allentown....364 Altoona.....271 Connellsville...326 Easton.....91 East Mauch Chunk.....244 Erie.....56 Greensburg...379 Harrisburg...53 Johnstown...390 Lancaster....71 Meadville....408 New Brighton...343 New Castle....82 Norristown...377
--	--	--	--	--

## CLASSIFIED DIRECTORY OF LOCAL UNIONS—Continued.

Oil City .....228	<b>South Dakota.</b>	<b>Utah.</b>	Wheeling .....141	Victoria.....230
Philadelphia.. 21	Sioux Falls....360	Ogden.....316	Wheeling .....141	
Philadelphia.. 98		Salt Lake City. 57	<b>Wisconsin.</b>	<b>Manitoba.</b>
Philadelphia..240	<b>Tennessee.</b>	Salt Lake City 305	Appleton.....201	Winnipeg .....106
Philadelphia..287	Knoxville.....318	Salt Lake City 354	Ashland.....255	
Pittsburg..... 5	Memphis.....192	Salt Lake City 380	Beloit.....311	<b>New Brunswick.</b>
Pittsburg..... 14	Nashville .....129		Eau Claire.....432	St. John.....174
Pittsburg..... 319		<b>Virginia.</b>	Grand Rapids.440	
Pittsburg.....355	<b>Texas.</b>	Newport News	Janesville.....441	<b>Nova Scotia.</b>
Pittston.....357	Austin.....115	.....165	Kenoska.....457	Sydney .....384
Scranton..... 81	Beaumont.....221	Norfolk..... 80	La Crosse.....185	
Shamokin.....263	Beaumont.....308	Richmond.... 48	Madison.....159	<b>Ontario.</b>
Sharon.....218	Dallas..... 69		Marquette.... 274	
Uniontown....161	Dallas.....188	<b>Washington.</b>	Milwaukee....424	Hamilton .....106
Warren..... 63	Denison.....338	Aberdeen.....458	Milwaukee.... 83	London.....120
Wilkesbarre..163	El Paso..... 13	Everett.....191	Milwaukee....426	Ottawa.....400
<b>Philippine Islands</b>	Fort Worth...156	Seattle..... 77	Oshkosh.....187	St. Catharines.249
Manila.....418	Galveston....124	Seattle.....202	Racine.....430	Sault Ste Ma-
	Greenville....348	Seattle.....217	West Superior.276	rie..... 85
<b>Rhode Island.</b>	Houston..... 66	Spokane .... 78	<b>Wyoming.</b>	Toronto.....114
Providence.... 99	Palestine....358	Tacoma..... 76	Cheyenne .....415	Toronto.....353
Providence....258	Paris.....320	Whatcom.....334		
Newport.....268	San Antonio.. 60	<b>West Virginia.</b>	<b>CANADA.</b>	<b>Quebec.</b>
<b>South Carolina.</b>	Sherman.....272	Charleston...256	British Colum-	Montreal.....132
Charleston....179	Temple.....158	Fairmont.....323	bia.	Montreal.....427
Columbia.....382	Tyler.....314	Parkersburg..168	Vancouver....218	Quebec.....393
Spartanburg.442	Waco..... 72			
Sumter.....458				

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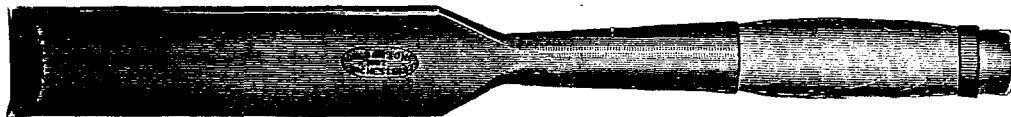
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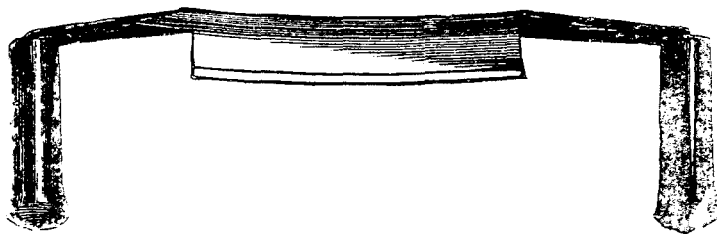
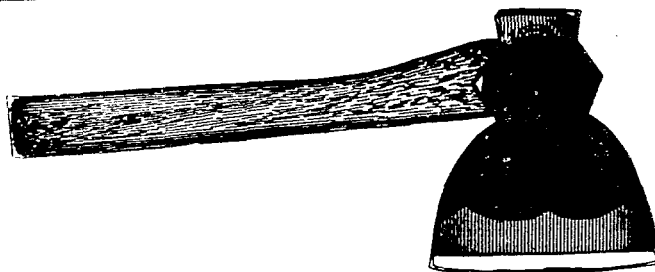
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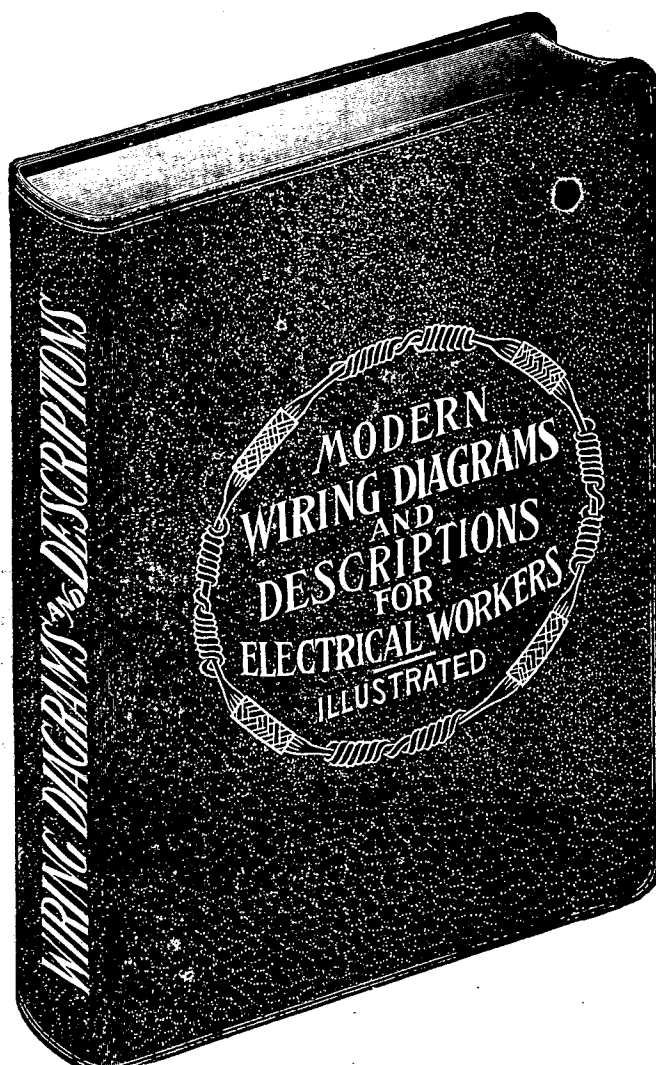
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## CONTENTS.

	DIAGRAMS
Call and Alarm Circuits	12
Annunciators.....	8
Bells.....	9
Return Call Annunciators.....	4
Fire and Burglar Alarm	10
Telephone.....	7
Telegraph.....	3
Gas Lighting by Electricity.....	4
Automatic Fire Alarms	1
Primary Batteries.....	7
Connecting Up.....	3
Miscellaneous Circuits..	6
Electric Lighting.....	30
Arc Lamps.....	4
Meters.....	28
Motors.....	21
Generators.....	7
Compensators.....	1
Switch Boards.....	3
Ground Detectors.....	10
Storage Batteries.....	1
Testing.....	2
Wheatstone Bridge.....	3
Light.....	6

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